SOAP AND CHEMICAL SPECIALTIES

JANUARY 1960

1960

From the Olympian heights of the Esso Standard Oil Co. building in New York's Radio City, Dr. George W. Fiero contemplates year ahead as newly elected president of Chemical Specialties Manufacturers Assn.

IN THIS ISSUE

Soap industry meeting in New York 53
Protein based detergents 57
Nielsen index on aerosols 91
Insect resistance up to date 87

Faster-selling paint removers begin with...

Formulations data and Facts on SOLVAY METHYLENE CHLORIDE

Yours for the asking—this wide variety of Solvay technical literature and folders, plus objective articles from the chemical press, to help you evaluate Solvay® Methylene Chloride for your paint remover formulation.

This chloromethane solvent is the ideal active ingredient for products designed for the growing "do-it-yourself" market. It is *safe*—non-flammable, low in toxicity—yet *effective*. Rapidly removes a wide range of finishes, including stubborn, caustic-resistant organic types, from a great variety of bases—wood, aluminum, many others attacked by caustic. Perfect for scrape-off, flush-off or aerosol formulas.

Solvay Technical Service can also help you plan and compound paint remover specialties.

Sodium Nitrite • Calcium Chloride • Chlorine • Caustic Soda • Caustic Potash Potassium Carbonate • Sodium Bicarbonate • Chloroform • Methyl Chloride Soda Ash • Vinyl Chloride • Ammonium Chloride • Methylene Chloride • Carbon Tetrachloride • Snowflake® Crystals • Monochlorobenzene • Ortho-dichlorobenzene Para-dichlorobenzene • Ammonium Bicarbonate • Hydrogen Peroxide • Aluminum Chloride • Cleaning Compounds • Mutual® Chromium Chemicals

Allied Chemical

SOLVAY PROCESS DIVISION
61 Broadway, New York 6, N. Y.

SOLVAY branch offices and dealers are located in major centers from coast to coast.

Mail to SOLVAY for sample, literature, technical aid!

Please send: DM-10A

- ☐ Solvay Methylene Chloride sample
- ☐ Chemical Week article—"Brighter Finishes Spotlight New Strippers"
- ☐ Fact folder OC-11
- ☐ "Non-Flammable Paint Strippers"—3 articles
- ☐ Solvay Methylene Chloride for Paint Removing Compounds 3-558
- ☐ Effect of Methylene Chloride on Nylon Paint Brushes 5-55
- ☐ Evaporation retarders for Paint Removers 8-55
- ☐ Research on Thickeners for Paint Removers 9-55
- ☐ Methylene Chloride Paint Brush Cleaner 12-55
- ☐ See attached letter on remover I want to market

Name _____

Position _____

Company _____

Phone _____

Address _____

City _____ Zone ____ State _____

You should keep women much on your mind. They like the very fine fragrances. You're giving them the fine fragrances when you perfume fine products with traditional good scents from Norda.
Rely on great skills—from Norda. Expect even greater to come from continuous research and development in quality, creator of confidence.
Norda makes good scents
Norda
601 W. 26 St., New York 1, N. Y.
CHICAGO · LOS ANGELES · SAN FRANCISCO
TORONTO · MONTREAL · HAVANA · LONDON
PARIS · GRASSE · MEXICO CITY

Pigment suspending agents

Industries widest range of Lauryl Sulfates

Cosmetics

Fire Fighting Foam

Industrial cleaners

Polymer stabilizers

Fine fabric detergents

Ore floatation agents

Household cleaners

Dentifrices

Burnishing compounds

The Maprofix Series

by ONYX

The Maprofix series of anionic surfactants . . . for use in dispersing or foaming or surfactant applications. Specially prepared by ONYX, the leader in lauryl sulfate technology. Highly surface active . . . easily soluble . . . excellent chemical stability.

There is a specific Maprofix available for every process or product requiring dense, stable foam or efficient dispersing.

Consult ONYX first on your specific application. Our large and capable research, development and technical service staff will be pleased to review your problems and suggest the ideal MAPROFIX compound to satisfy your every requirement.

Write for free 24-page booklet which describes our line of highly developed surface active agents.

50 YEARS OF SERVICE

ONYX CHEMICALS

Onyx Oil and Chemical Company JERSEY CITY 2, NEW JERSEY

Volume XXXVI, No. 1, Jan., 1960

Cover photo: Dr. George W. Fiero, newly elected president, Chemical Specialties Manufacturers Assn., is graduate pharmacist, former college professor, one-time WPB official. Since 1948 he has been with Esso Standard Oil Co., New York, as assistant manager, lube and wax division, petroleum specialties dept.

MEMBER
AUDITED PAID CIRCULATION ABC
SINCE 1934

IN THIS ISSUE

45 AS THE EDITOR SEES IT
49 AS THE READER SEES IT
51 **DETERGENTS, CLEANSERS, SOAPS**
53 SOAP INDUSTRY MEETING
57 PROTEIN BASED DETERGENTS, *by H. L. Sanders and M. Nassau*
60 NEW HAIR SHAMPOOS CUT EYE IRRITATION
61 PERFUMING OF AEROSOLS, *by Victor DiGiacomo*
65 COSMETIC CHEMISTS AWARD TO GUMP
71 **CHEMICAL SPECIALTIES**
75 CSMA MEETS, ELECTS FIERO
87 INSECT RESISTANCE, *by A. W. A. Brown*
91 NIELSEN INDEX OF AEROSOLS, *by James O. Peckham*
103 NEW DEVELOPMENTS IN DISINFECTANTS, SANITIZERS, *by Arnold Lada*
125 **PACKAGING**
129 SALESMEN WHO WORK FOR NOTHING, *by Walter F. Kohn*
133 PACKAGING NOTES
139 NEW PRODUCTS PICTURES
143 GLASS CONTAINER IMPROVEMENTS
147 NEW TRADE MARKS
149 PRESSURE PACKAGING
153 AEROSOL MARKET POTENTIAL, *by Ralph A. Crane*
159 AEROSOL PATENTS
161 **PRODUCTION**
163 PRODUCTION OF CHEMICAL SPECIALTIES, *by Julius A. Neuberger and Herbert L. Green*
173 SOAP PLANT OBSERVER
177 NEW PATENTS
179 PRODUCTS AND PROCESSES
185 **NEWS**
211 CLASSIFIED ADVERTISING
218 ADVERTISERS' INDEX
219 MEETINGS CALENDAR
220 TALE ENDS

FRANK J. REILLY
Editor

CHARLOTTE HAAS
Associate Editor

EDWARD BLOCH
News Editor

THOMAS MORGAN
Advertising Manager

ALVIN PLOFSKY
Production Manager

ESFERA FAY
Circulation Manager

Published monthly by
MAC NAIR-DORLAND COMPANY, Inc.

IRA P. MAC NAIR
President

GRANT A. DORLAND
Vice-President and Treasurer

Publication Office
254 W. 31st St., New York 1, N. Y.
Telephone Bryant 9-4456

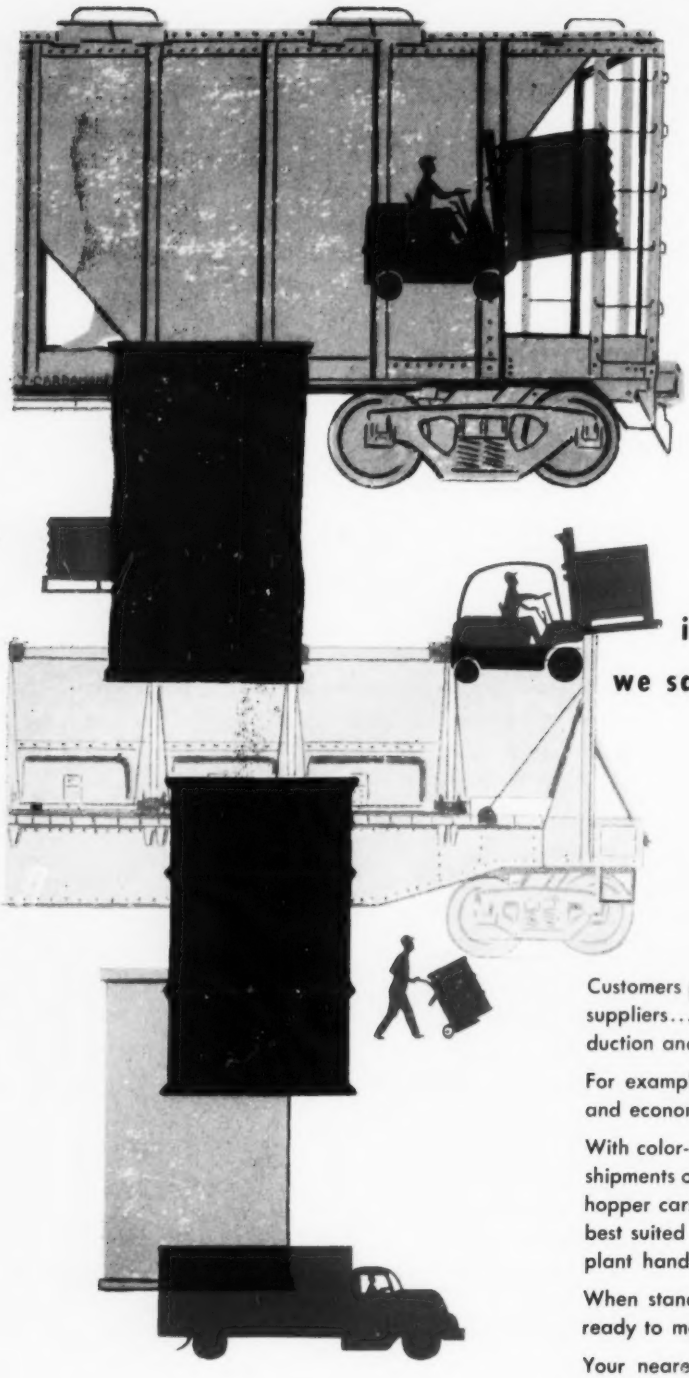
Chicago Office
612 N. Michigan Ave.

Copyright 1960. MacNair-Dorland Co., Inc.
Reproduction of any editorial matter in whole or part strictly forbidden.

OFFICIAL PUBLICATION
CHEMICAL SPECIALTIES MANUFACTURERS ASSN.

Subscription rates: U. S., $4.00 per year; Canadian, $5.00; Foreign, $11.00 (two years only). Copy closing dates — 15th of month preceding month of issue for reading matter; 10th of month preceding month of issue for display advertising.

Single copies: Current issues, 50¢; all back issues, $1.00. Claims for missing copies must be received within 60 days of mailing date. Second class postage paid at New York, N. Y., and at Baltimore, Md.



Packaging flexibility!

it's just another way to say we save you time, trouble and money on

Westvaco® Phosphates

Customers profit by our experience and versatility as phosphate suppliers... our broadly diversified product line, multi-plant production and our ablility to accommodate special requirements.

For example, our flexibility in providing the most convenient and economical packaging.

With color-coded bags, reusable or disposable drums, unitized shipments on wooden or disposable pallets, semi-bulk bins and hopper cars, we can ship your phosphates in the way you find best suited to your purchasing, storage, inventory control, in-plant handling and processing.

When standard packaging doesn't fill the bill, we're always ready to make modifications to meet your individual needs.

Your nearest Westvaco office will be glad to discuss your packaging requirements with you.

SODIUM PHOSPHATES Disodium Phosphate Hexaphos® Fosfodril® Sodaphos® Monosodium Phosphate Sodium Acid Pyrophosphate Sodium Tripolyphosphate Tetrasodium Pyrophosphate Trisodium Phosphate Anhydrous Trisodium Phosphate Hemihydrate Trisodium Phosphate Monohydrate

POTASSIUM PHOSPHATES Dipotassium Phosphate Monopotassium Phosphate Potassium Tripolyphosphate Tetrapotassium Pyrophosphate Tripotassium Phosphate

Putting Ideas to Work

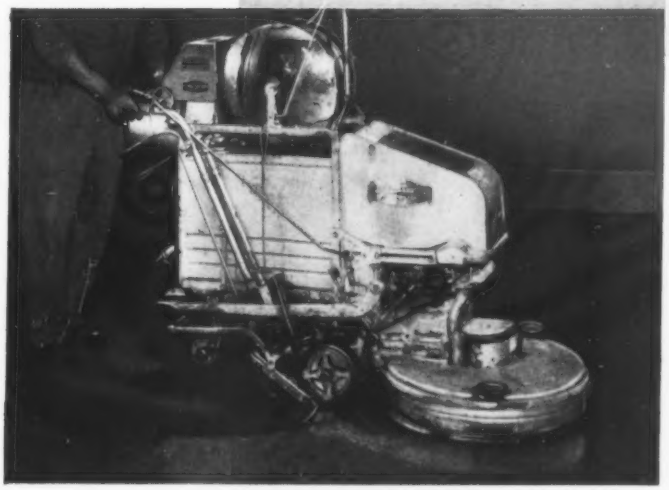
FOOD MACHINERY AND CHEMICAL CORPORATION
Westvaco Mineral Products Division

General Sales Offices:
161 E. 42nd STREET, NEW YORK 17

NINOL 1301

NEW TYPE AMIDE

SOLUBILITY IN HARD WATER AND MAXIMUM STABILITY



OUTSTANDING FOR USE IN

- SYNTHETIC LIQUID FLOOR CLEANERS
- WAX STRIPPERS
- ALKALI CLEANERS
- DETERGENT SANITIZERS

This Stepan product is a completely new and different type of fatty acid alkylolamide detergent derived from coconut oil. Among its distinctive advantages over the usual amides, Ninol 1301 offers the following: **HARD WATER CLARITY.** Clearly soluble in hard water. There is none of the usual haze or turbidity and this carries over to the formulated cleaners based on Ninol 1301. It is soluble in water at all concentrations. **COMPATIBILITY WITH QUATERNARIES.** Disinfectant cleaners can be formulated from Ninol 1301 and quats with excellent clarity and viscosity. **ALKALINE STABILITY.** Completely stable to boiling in alcoholic potash, making it possible to use Ninol 1301 in highly alkaline liquids. **COLOR.** In the very light yellow range, making it possible to dye formulations to any particular shade. **ACTIVITY.** Virtually 100% active, giving maximum detergency per pound. Write for samples, prices, literature.

STEPAN
CHEMICAL COMPANY

427 W. Randolph St.
Chicago 6, Illinois
STate 2-4711

S-1

STEPAN CHEMICAL COMPANY
427 W. Randolph Street
Chicago 6, Illinois

Gentlemen: Please send me complete information, prices and a sample of NINOL 1301.

Name .....
Firm .....
Street Address .....
City ..... Zone ..... State .....

This is a
TRIPOLYPHOSPHATE
you've never seen before!
Careful calcining of a specially spray-dried slurry has produced "Tripoly" grades ideally suited for use as a detergent builder.
It's a new product! Starting with our own phosphate ores and continuing through processing in completely modern equipment, every step is designed by The American Agricultural Chemical Company to produce the optimum in a free-flowing detergent-grade product.
"AA" QUALITY SODIUM TRIPOLYPHOSPHATE is now available in every standard package and in any commercial quantity. Naturally, we welcome inquiries for full technical information, samples and trial quantities.
Chemical Department
The American Agricultural Chemical Company
100 Church Street, New York 7, N. Y.

Top detergent quality
in every granule . . .

AA QUALITY SODIUM TRIPOLYPHOSPHATE

"Bulked" for detergent use

Particle size and density of AA Quality Sodium Tripolyphosphate is determined by special control of the slurry quality and the subsequent spray drying and calcining operations. The result is a powder or granule just right for the great majority of detergent-blending needs.

Unusually uniform temperature rise

Your own temperature-rise specification will be met within a very narrow range by AA Quality Sodium Tripolyphosphate. This is because an excellent degree of control over the flow rate-temperature relationship in the calcining process permits a very consistent product within each batch—and from one batch to another.

Free-flowing

Uniform particle size to assure thorough blending and easy pouring was a *particular* requirement of the process design. The results will speak for themselves in your product.

Service . . . "straight" or mixed

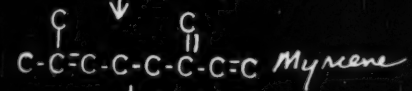
The economy and convenience of mixed phosphate shipments from The American Agricultural Chemical Company provides the most economical way of maintaining supply and inventory of detergent-grade phosphates.

AA QUALITY SODIUM TRIPOLYPHOSPHATE
AA QUALITY TETRASODIUM PYROPHOSPHATE
AA QUALITY TRISODIUM PHOSPHATE
AA QUALITY DISODIUM PHOSPHATE

ANNOUNCING

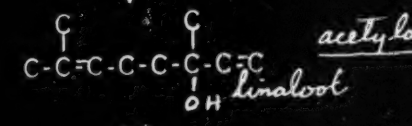
β-Pinene

Pyrolysis



Myrcene

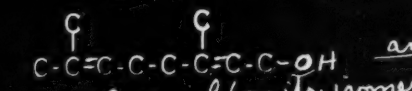
hydrate



linalool

acetylate → linalyl acetate

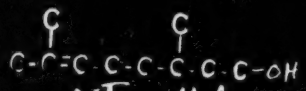
or



geraniol (or its isomer - nerol)

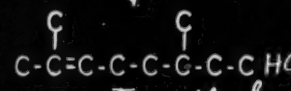
acetylate → geranyl acetate

hydrogenate



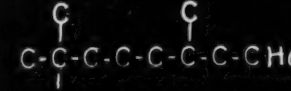
citronellol

dehydrogenate



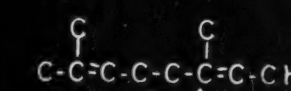
citronellal

hydrate



hydroxycitronellal

dehydrogenate



citral

condense with acetone

pseudoionone

cyclize

alpha- and beta-ionones

Dec 11, 1959

A NEW AND CERTAIN SOURCE OF AROMATIC CHEMICALS

The Glidden Company and Firmenich Incorporated have now joined to provide synthetic aromatic chemicals from a source in unlimited domestic supply.

New and patented developments by the organic chemists of The Glidden Company have now made it possible to produce *synthetically* the aromatic chemicals previously obtained from remote natural sources. These newly derived materials offer manufacturers a series of important advantages.

Most important of these advantages is freedom from the supply, quality, and price fluctuations which are characteristics of natural aromatic oils. The raw material utilized in these processes assures that these synthetically produced "natural" products will continue to be readily available in unlimited quantities on a realistic and stabilized cost basis.

Another major advantage is the purity these new processes make possible. Since they involve the conversion of pure ten carbon atom hydrocarbons to such products as linalool, geraniol, and citronellol which are ten carbon atom *alcohols*, no strange products appear in the reaction and it is possible to achieve a purity entirely impractical with isolates of essential oils. "High off-odor values" are practically eliminated. The perfumer, freed from the limitations imposed by undesirable and unpredictable side elements occurring in natural products, may modify the basic pure material to achieve whatever fragrance notes he desires.

Developed with the technical collaboration of Firmenich, who for more than seventy years has been a world leader in the supply of flavors and fragrances and among whose associates are a Nobel Prize laureate and 4 ACS-administered award recipients, these new aromatics are being manufactured by The Glidden Company and will be distributed exclusively throughout the United States and Canada by Firmenich Inc. Terpenic aromatics now available include: geraniol, linalool, citronellol and their esters. For further information on this revolutionary new development write Firmenich Inc., 250 West 18th Street, New York 11, New York.

FIRMENICH INCORPORATED

FIRMENICH & CIE
SUCCESSEURS DE
CHUIT, NAEF & CIE
GENEVE SUISSE

250 WEST 18TH STREET, NEW YORK 11
FIRMENICH OF CANADA, LIMITED,
348 WALLACE AVENUE, TORONTO
CHICAGO OFFICE - 612 NORTH MICHIGAN AVENUE
LOS ANGELES - 1416 CRESTVIEW COURT
GENEVA PARIS LONDON

QUALITY Glidden PRODUCTS

Trademark of The Glidden Company

STEER A STEADY COURSE with CANDY PRODUCTS

PRIVATE BRAND* RESALE BUYERS OF WAXES

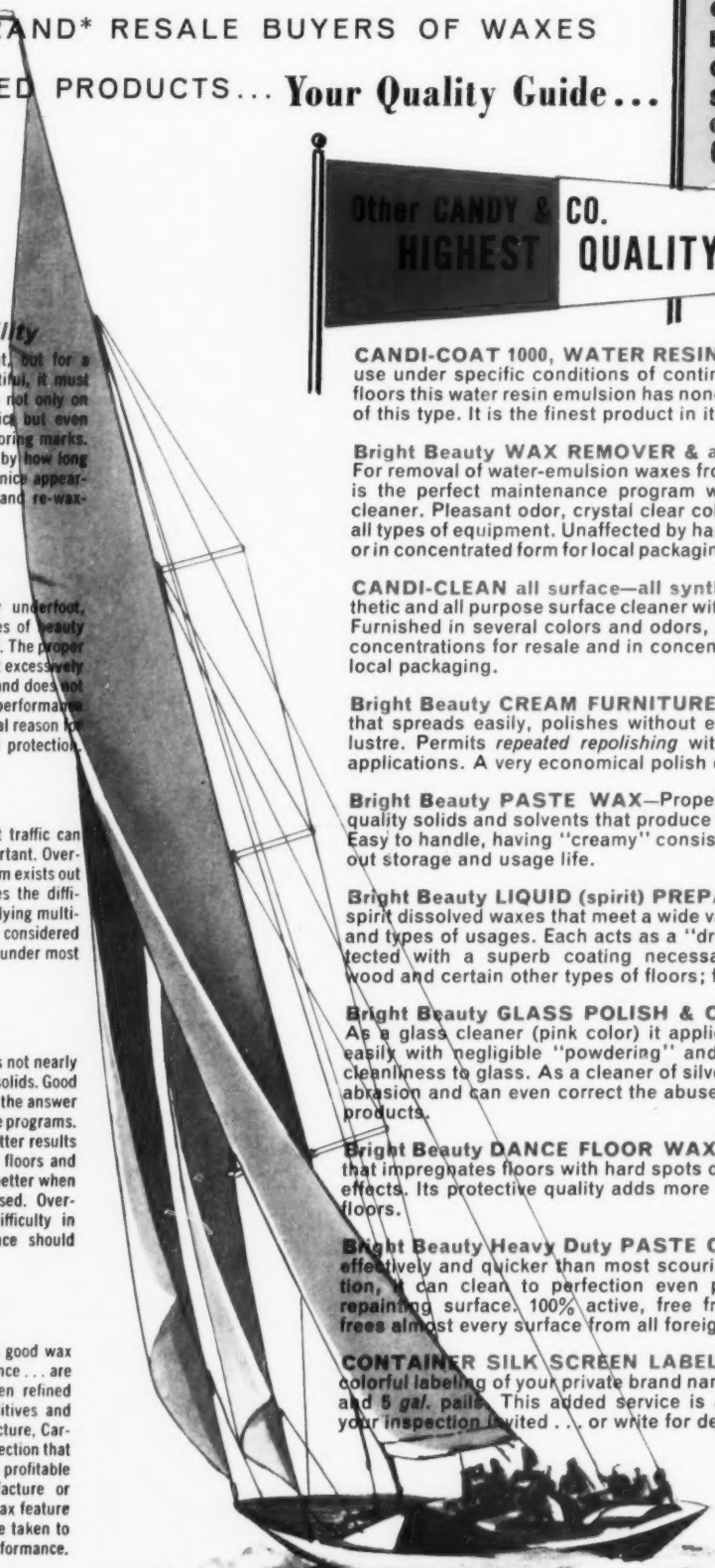
AND KINDRED PRODUCTS... **Your Quality Guide...**

WATER EMULSION WAXES

Each of Candy's floor waxes are all-around top quality for certain traffic conditions. They impart the finest protection and beauty to floors for which best suited.

CANDY'S SUPREME (standard)
BRIGHT BEAUTY®
CANDY'S SUPREME Special WR
SUPER CAND-DOX®
CAND-DOX® # CS
CANDI-WAX #6000

Other CANDY & CO. HIGHEST QUALITY PRODUCTS



Beauty and Durability

Initial appearance is important, but for a waxed surface to remain beautiful, it must be durable. Durability depends not only on resistance to abrasion of traffic, but even more so on resistance to discoloring marks. Durability should be measured by how long the waxed surface maintains a nice appearance before complete removal and re-waxing is required.

Anti-Slip

Anti-slip, or reasonable safety underfoot, does not mean that the qualities of beauty and protection need be sacrificed. The proper balance—a wax film which is not excessively slippery, yet which is not tacky and does not collect dirt readily—gives the performance that answers the foremost original reason for use of a floor wax—beauty and protection.

Water Resistance

Frequent damp mopping or wet traffic can make water resistance very important. Overdoing this quality when no problem exists out of the ordinary, simply increases the difficulty of complete removal or applying multiple coats. Removability must be considered as important as water-resistance under most normal conditions.

Solid Content

The percentage of solid content is not nearly as important as the **quality** of the solids. Good quality indicates 12% of solids as the answer for most well planned maintenance programs. Two applications of 12% gives better results than one of 18%. "Washed out" floors and other special problems maintain better when more concentrated waxes are used. Overwaxing and resultant greater difficulty in removal for periodic maintenance should be avoided.

Carnauba Wax

The most important features of a good wax . . . all-around quality of performance . . . are built around Carnauba Wax. When refined and compounded with other additives and scientifically controlled in manufacture, Carnauba imparts the beauty and protection that makes the use of floor waxes both profitable and possible. Make-shift manufacture or over-emphasis on any one given wax feature should be avoided and proper care taken to provide for most satisfactory performance.

CANDI-COAT 1000, WATER RESIN EMULSION—As a floor coating for use under specific conditions of continued maintenance on certain types of floors this water resin emulsion has none of the faults associated with coatings of this type. It is the finest product in its class produced up to this time.

Bright Beauty WAX REMOVER & all-purpose SURFACE CLEANER—For removal of water-emulsion waxes from any floor without harmful effects. It is the perfect maintenance program wax remover and all-purpose surface cleaner. Pleasant odor, crystal clear color and thorough cleaning action with all types of equipment. Unaffected by hard freezing. Furnished ready for resale or in concentrated form for local packaging . . . nothing but water to buy or mix in.

CANDI-CLEAN all surface—all synthetic CLEANER—This is an all synthetic and all purpose surface cleaner with free rinse and free wipe off qualities. Furnished in several colors and odors, and properly priced. Available in two concentrations for resale and in concentrated form for dilution with water for local packaging.

Bright Beauty CREAM FURNITURE POLISH—A cream furniture polish that spreads easily, polishes without excessive effort to a deep impressive lustre. Permits *repeated repolishing* with a dry cloth, thus saving many re-applications. A very economical polish of the very highest quality.

Bright Beauty PASTE WAX—Properly blended and refined from excellent quality solids and solvents that produce the best drying time and evaporation. Easy to handle, having "creamy" consistency and stability that lasts throughout storage and usage life.

Bright Beauty LIQUID (spirit) PREPARED WAXES—A complete line of spirit dissolved waxes that meet a wide variety of demands for durability, color and types of usages. Each acts as a "dry cleaner" to keep surfaces wax protected with a superb coating necessary for many applications such as wood and certain other types of floors; for bars, wallpaper, etc.

Bright Beauty GLASS POLISH & CLEANER and SILVER POLISH—As a glass cleaner (pink color) it applies evenly with little effort, wipes off easily with negligible "powdering" and produces an undeniable "feel" of cleanliness to glass. As a cleaner of silver, it polishes to a high lustre *without* abrasion and can even correct the abuses of scratchy "quick-polish" inferior products.

Bright Beauty DANCE FLOOR WAX—Does not "ball-up" and gather dirt that impregnates floors with hard spots difficult to remove . . . free from dusty effects. Its protective quality adds more "floor-years" to expensive ballroom floors.

Bright Beauty Heavy Duty PASTE CLEANER—*Cleans* and *scours* more effectively and quicker than most scouring powders. Depending on application, it can clean to perfection even painted walls to provide a suitable repainting surface. 100% active, free from excessive abrasive qualities, it frees almost every surface from all foreign matter.

CONTAINER SILK SCREEN LABELING—Now you can have dramatic, colorful labeling of your private brand name on all 55, 35, 30, 20 & 15 *gal.* drums and 5 *gal.* pails. This added service is accomplished right in our plant . . . your inspection invited . . . or write for details.

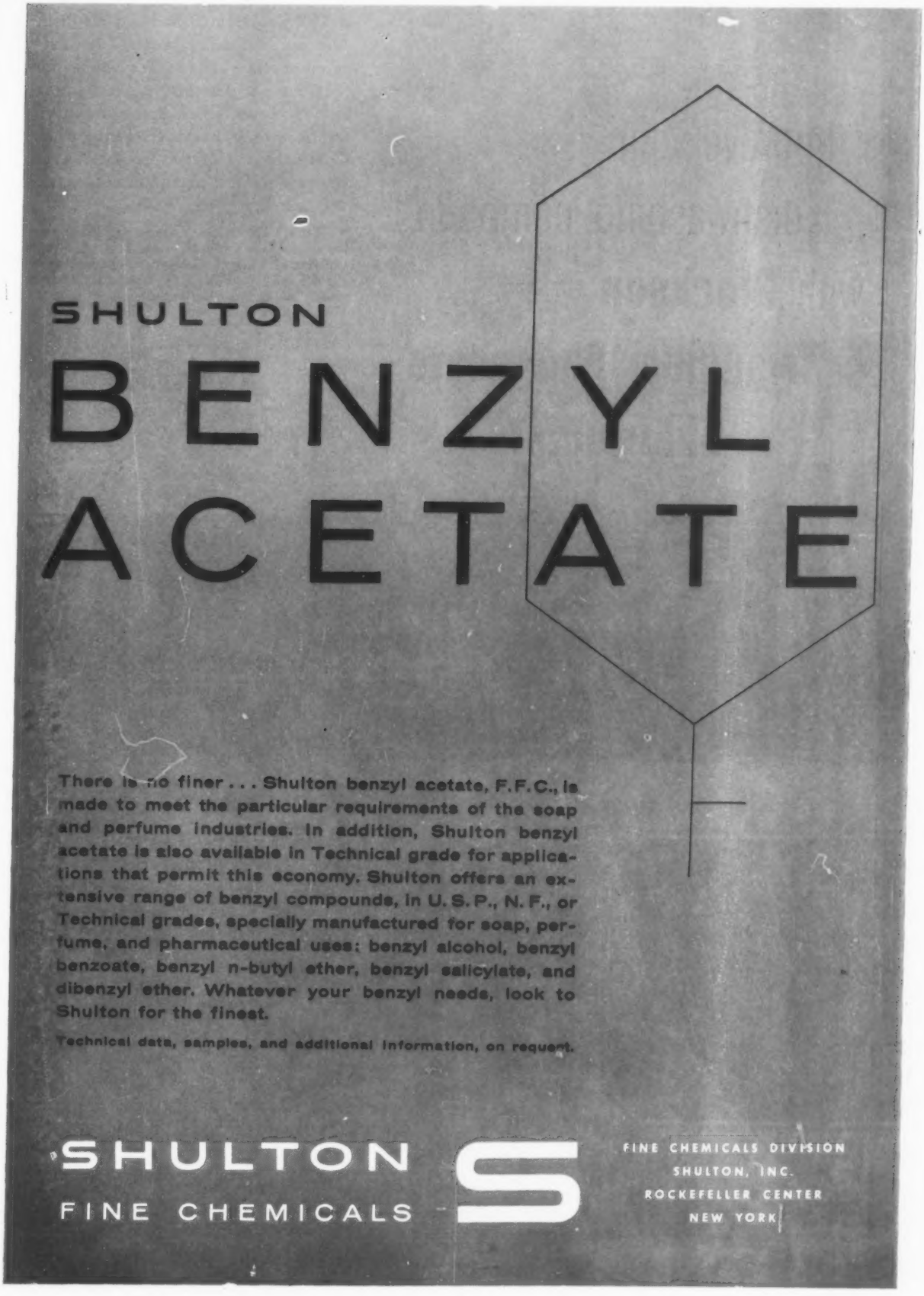
*All Candy's products are available for private brand resale and are sold only through distributors except for experimental accounts in Chicago essential to research.

Candy & Company, Inc.

EST. 1891

Wax Specialists for over 65 years

2515 W. 35th ST., CHICAGO 32


SHULTON
BENZYL
ACETATE
There is no finer . . . Shulton benzyl acetate, F.F.C., is made to meet the particular requirements of the soap and perfume industries. In addition, Shulton benzyl acetate is also available in Technical grade for applications that permit this economy. Shulton offers an extensive range of benzyl compounds, in U. S. P., N. F., or Technical grades, specially manufactured for soap, perfume, and pharmaceutical uses: benzyl alcohol, benzyl benzoate, benzyl n-butyl ether, benzyl salicylate, and dibenzyl ether. Whatever your benzyl needs, look to Shulton for the finest.
Technical data, samples, and additional information, on request.
SHULTON
FINE CHEMICALS
FINE CHEMICALS DIVISION
SHULTON, INC.
ROCKEFELLER CENTER
NEW YORK

Improve your dishwashing compound with **Blockson Trisodium Phosphate Chlorinated**

■ TSP Chlorinated boosts your dish-detergent's cleaning power, speeds removal of grease and fats. It's buffered for optimum pH, detergency and solution stability. Gives dishes, glasses, flatware a free rinsing sparkle. Destains and bleaches, too! Its chlorine is readily available. At all Blockson jobbers. WRITE FOR DATA BULLETIN, SAMPLE.

PRIVATE LABELERS: As a sanitizing-disinfectant for DAIRIES, BREWERIES, CANNERIES, etc.—TSP Chlorinated is one of the steadiest repeat sellers in the chemicals field. Write for Special Bulletin on *private labeling and registration* required by U. S. Dept. of Agriculture.

BLOCKSON

BLOCKSON CHEMICAL COMPANY

Chemicals Division

Olin Mathieson Chemical Corp.

Joliet, Ill.

In commercial dishwashers...steps up grease removal. Speeds cleaning cycle. Releases chlorine rapidly.

In home dishwashers...imparts free rinsing sparkle. Substantially boosts cleaning power.

with detergents made from

NEOLENE 400

The proven chemical intermediate...Neolene® 400 . . . is used by many of the world's leading processors of detergents and surfactants. It is an alkyl benzene of the highest quality and is an exceptional base for both liquid and dry detergents. Why not put Neolene 400 to work for you? Its many outstanding characteristics include:

Stability during sulfonation

Uniformity and purity

Excellent color and odor

Makes detergents with exceptional wetting, cleansing and foam properties

CONOCO Petrochemicals

Petrochemical know-how from the ground up!

© 1960, Continental Oil Company

CONSIDER CONTINENTAL'S:

QUALITY— Neolene 400 is consistently high in quality as are all other Conoco petrochemicals. This reputation for quality is the result of steadily improved production facilities and Conoco's determination to find better ways to produce superior products.

QUICK DELIVERY— Conoco's extensive distribution facilities assure you of fast service, whether by tank car, tank truck, or barge. This assurance of quick, efficient delivery simplifies your own inventory and storage problems.

TECHNICAL ASSISTANCE—Whether you purchase in large or small quantities, Conoco technicians stand ready to help you improve a product or a process, to find new applications, to suggest ways of cutting costs.

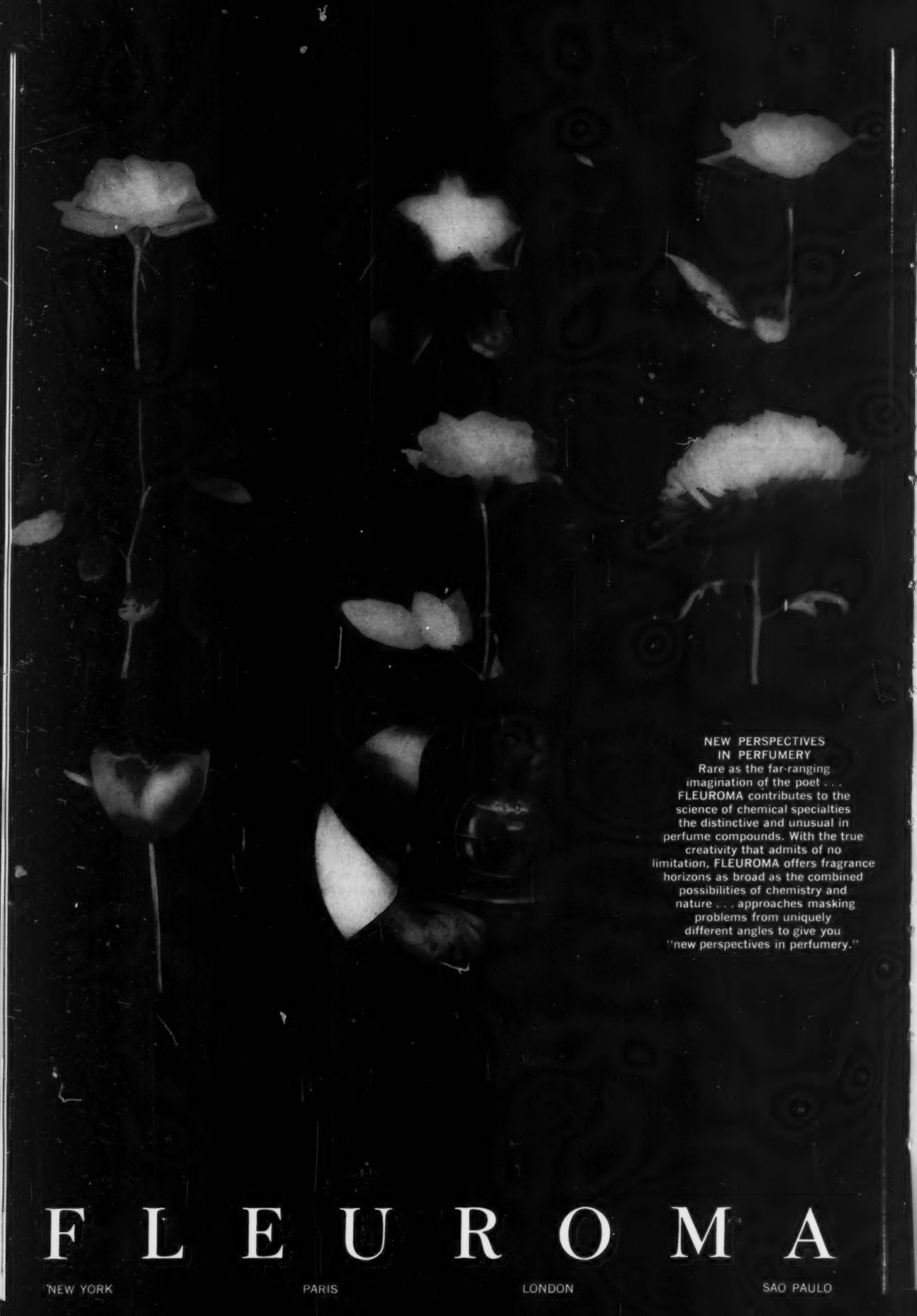
May we suggest that you call or write today for samples and more information about Neolene 400.

CONTINENTAL OIL COMPANY

Petrochemical Department

1270 Avenue of the Americas, New York 20, N. Y.

European Sales Office: Box 1207, Rotterdam, The Netherlands



NEW PERSPECTIVES
IN PERFUMERY

Rare as the far-ranging imagination of the poet . . . FLEUROMA contributes to the science of chemical specialties the distinctive and unusual in perfume compounds. With the true creativity that admits of no limitation, FLEUROMA offers fragrance horizons as broad as the combined possibilities of chemistry and nature . . . approaches masking problems from uniquely different angles to give you "new perspectives in perfumery."

FLEUROMA

NEW YORK PARIS LONDON SAO PAULO

Lathanol®

. . . recommended to create products that combine excellent detergent action with gentle mildness and high-sudsing properties.

Outstanding for soap-free skin cleansers, luxurious bubble baths and billowy shampoos.

Ideal choice as a base for medicinal detergents, a foaming agent in dentifrices or to add new appeal to a variety of other cosmetic preparations and toiletries.

Samples will be provided on request.

Allied Chemical

NATIONAL ANILINE DIVISION

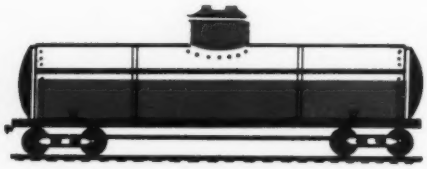
40 Rector Street, New York 6, N. Y.

Atlanta Boston Charlotte Chicago Greensboro Los Angeles
Philadelphia Portland, Ore. Providence San Francisco

In Canada: ALLIED CHEMICAL CANADA, LTD., 100 North Queen St., Toronto 18

Distributors throughout the world. For information:
ALLIED CHEMICAL INTERNATIONAL • 40 Rector St., New York 6, N. Y.

The higher the quality of your detergent raw material the higher the quality of your finished products. And in the future as in past years ALKANE* will remain the finest quality raw material you can buy.

For when it's possible to volume produce  a better alkylate,

you can be certain ORONITE will have it.

*Oronite's trademark for its detergent intermediate.

ORONITE CHEMICAL COMPANY
A CALIFORNIA CHEMICAL COMPANY SUBSIDIARY
EXECUTIVE OFFICES • 200 Bush Street, San Francisco 20, California
SALES OFFICES • New York, Boston, Wilmington, Chicago, Cincinnati, Cleveland, Houston, Los Angeles, San Francisco, Seattle
Foreign Affiliate: California Chemical International, Inc., San Francisco, Geneva, Panama

6244

After Closing

New Beach Soap Treasurer

Howell M. Stillman was elected treasurer of Beach Soap Co., Lawrence, Mass., early this

Howell M. Stillman

month. A director of the company since 1943, Mr. Stillman is well known in the banking and investment business. He is a director and member of the executive committee of the Massachusetts Business Development Corp. and a director of the Massachusetts Small Business Investment Co. Prior to his election as treasurer of Beach Soap, Mr. Stillman was president of the Bay State Merchants National Bank, Lawrence, Mass.

—★—

Mrs. Koppelman Dies

Frances Speyer Koppelman, widow of Harold Koppelman, founder of U.S. Sanitary Specialties Corp., Chicago, died Dec. 10 at the age of 69. Mrs. Koppelman died of a heart attack while visiting her doctor for a check up. Born in Kansas City, Mo., she grew up in Lexington, Ky., where she met Harold Koppelman. The couple moved to Chicago, where he was manager of West Disinfectant Co. for the midwestern area. Their only daughter, Eleanor is the wife of W. S. Jessop, now president of U. S. Sanitary.

In 1917 Harold Koppelman left West to found his own firm, the U.S. Sanitary Products Co., now U.S. Sanitary Specialties Corp. When he died in 1932 Mrs. Koppelman took over the direction of the business.

Mrs. Koppelman is survived by her daughter, Eleanore Claire Jessop; a son-in-law, W. S. Jessop; and two grandchildren, Mary Frances, and Adam S. Jessop.

—★—

Twin City Shellac Expands

Additional equipment was installed recently in the plant of Twin City Shellac Co., Brooklyn, N. Y., to meet the increased demand for the firm's line of waxes and heavy duty detergents manufactured under private label for chain stores and cooperatives. Twin City had been marketing these products under its "Dan-Dee" tradename for several years and recently entered the private label packaging field.

—★—

Balis Joins Mollen

Leonard Balis has been appointed a sales representative for Mollen Chemical Co., Philadelphia, it was announced recently by Walter N. Mollen, president. The company manufactures the "Mol-O-Matic" drip machine. Previously Mr. Balis was sales promotion and advertising representative for Industrial Bank and Trust Co., Philadelphia.

Leonard Balis

—★—

Allderdice Heads Bell

C. E. Allderdice, Jr., was elected president early this month of The Bell Co., Chicago, manu-

Charles E. Allderdice, Jr.

facturer of automotive chemical specialties. Presently second vice-president of the Chemical Specialties Manufacturers Association, Mr. Allderdice recently completed two years service as a member of the association's Board of Governors. He joined Bell in 1941 and is reported to have been responsible for the firm's previous growth and current plans for further expansion. At the same election, J. M. Bell became chairman of the board; M. B. Bell was elected vice-president; and C. J. Bell was elected secretary-treasurer and appointed chairman of the executive committee.

—★—

New Dow Auto Chemical

A new cooling system fluid for automobiles was announced recently by the Dow Chemical Co., Midland, Mich. The new product, known as "Dowgard," is a clear blue liquid which the maker states protects cars against rust, corrosion, freezing and overheating. It protects from 40° F below zero to 240° F above zero. It is stated to give a car the equivalent of a seal-

ed cooling system for a full year and eliminates the necessity for seasonal draining and flushing.

"Dowgard" will be sold to the public only through service dealers. It will be advertised nationally in newspapers, general circulation magazines, automotive trade magazines and on television starting in May. It will be sold by a national brands sales group within the Automotive Chemicals Division, Specialty Chemical Sales, of Dow Chemical. The following have been appointed regional sales managers for the new product: Robert Gow, Atlanta; Donald Legassey, Seattle; Robert Simonin, Camden, N. J. and George Slater, Chicago. In addition 24 men will work full time as national brands sales representatives.

—★—

Huisking Marks 50th Year

Chas. L. Huisking & Co., New York, marked the beginning of its 50th year this month with the announcement of a substantial increase in its research and development activities in the past year and plans for a broad product development program for 1960. The chemical firm recently expanded into the manufacture of chemical specialties for the plastics, and textile industries, and drugs for pharmaceuticals and proprietary drug products. Incorporated as Chas. L. Huisking, Inc., in 1917, the origin of the company dates back to Jan. 1, 1910, when Charles L. Huisking, at 25, became the youngest drug broker in American chemical industry's history.

Although its reputation in the chemical industry was established principally as broker, agent and distributor, the firm decided to expand into manufacturing in the fifties. Milestones in this expansion were the formation of its subsidiary, Clintbrook Chemical Co., for the production of fine chemicals in 1955 and the subsequent expansion of that company with the purchase of the Wm. S. Gray & Co. plant in Lyndhurst, N. J. In August 1958, Huisking acquired the assets of Glyco Products Co., now the Glyco Chemicals Division, which produces chemical specialties. Another Huisking division, Peder Devold Oil Co., originally acquired in 1946, was consolidated into Chas. L. Huisking & Co., together with Glyco and Clintbrook, at the end of 1958.

Chas. L. Huisking is operated by three of the founder's sons: William W. Huisking, president; Edward P. Huisking, vice-president of operations at the Lyndhurst plant; and Richard V. Huisking, secretary. Charles L. Huisking, the founder, is chairman of the board. On the occasion of the firm's 50th anniversary, William W. Huisking presented an honorary award plaque to his father, Charles L. Huisking citing the company's transition from distribution and export-import to manufacturing.

—★—

New Friend Rug Shampoo

A new rug and upholstery shampoo concentrate called "RCL" was introduced recently by Friend Soap Co., Chicago. The new product is reported to contain wetting agents, emulsifiers, phosphates, and optical brighteners and requires no pre-mixing. Two or three ounces of "RCL" to one gallon of water is the required dilution for the product's use as an upholstery cleaner. A one to one or one to two ratio is recommended for use as a spotting solution. "RCL" is packaged in one gallon jugs, 50 pound pails, and 30 and 55 gallon drums.

—★—

Brooks in U.S.I. Post

Albert C. Brooks has been named manager of the Baltimore sales division of U. S. Industrial Chemicals Co., New York, it was announced recently by Alden R. Ludlow, vice-president of sales. Mr. Brooks succeeds James F. Whitescarver who has retired. With U.S.I. for about 25 years, Mr. Brooks joined the division in 1940.

—★—

Gillespies Shift at G-R-P

John T. Gillespie, Sr., resigned as president of Gillespie-Rogers-Pyatt Co., New York, Jan. 1 to become chairman of the board. He is succeeded by his son, John T. Gillespie, Jr., who represents the fourth generation of Gillespie management. The firm, which imports and processes shellac and shellac specialties for industry, stems from a merger in 1929 of L. C. Gillespie and Sons and the Rogers-Pyatt Shellac Co.

William W. Huisking, left, president of Chas. L. Huisking & Co., presents plaque to his father, Charles L. Huisking, chairman, on occasion of 50 anniversary of founding.

New Firmenich research laboratory in Geneva.

Firmenich Opens New Lab in Geneva

NEW research laboratories were officially opened recently by Firmenich & Cie., essential oil and aromatics house in Geneva, Switzerland. Construction and fitting of the new facilities took four years, according to Roger Firmenich, one of the partners of the firm. Dr. Firmenich spoke at the inauguration ceremony. Equipment provides for the very latest methods of analysis and for the addition of an isotope laboratory in the near future.

The building houses principal and subsidiary laboratories for fundamental organic research; a physical chemistry department which comprises micro- and macro-analytical and spectographic laboratories as well as a laboratory for the assembling of chemical and physical apparatus; a department for paper chromatography; and a pilot plant. In addition, every conceivable auxiliary tool is provided. These facilities serve a research team under the leadership of Max Stoll, Firmenich's research director. Work on natural and synthetic compounds is carried on, but stress is placed on the analysis of the former.

Firmenich's tradition of research goes back to 1912 when one of its founders, Philippe Chuit, built research facilities which were in use until the new center was completed. The original building and equipment had, of course, undergone extensive modifications. In 1926 the firm retained the services of Leopold Ruzicka, world authority on sterols and essential and alkaloid plant principles, who was then professor at the Swiss Federal Polytechnic. This policy of maintaining ties with academic research has led to the creation of centers in Paris in 1947, and in Cambridge, Mass. in 1955 and 1958.

A 40-page illustrated brochure has just become available from Firmenich, which describes the layout and equipment of the new center. Also included are reports on current projects carried out in the Geneva laboratories, such as a new ambrinol synthesis, isolation of a new epoxide in the field of ambergris, and other original work.

Firmenich's American associate is Firmenich & Co., located at 250 W. 18th St., New York 11.

—★—

New Form of Granular MSP

A new porous form of granular mono sodium phosphate said to combine the desirable qualities of both crystalline granular and powdered MSP, was announced recently by the inorganic chemicals division of Monsanto Chemical Co., St. Louis. The new product was developed for use in the metal cleaning, phosphatizing, and dairy cleaning fields. It will hold up to 10 per cent liquid nonionics without becoming wet in appearance. According to Monsanto the new grade MSP has the nonionic holding power of a powder, the flow properties of a granular material, and the ability to dissolve more rapidly in water than crystalline granular products.

—★—

In General Mills Post

Alfred G. DeMeurisse has been named national field sales manager of the chemical division of General Mills Corp., Kankakee, Ill., it was announced last month by Howard T. VonOehsen, division manager of sales. With General Mills since 1957, Mr. DeMeurisse previously served as New York district sales manager for the chemical division. He now makes his headquarters in Kankakee. Before joining the company he was with the Barrett Division of Allied Chemical & Dye Corp., New York, where he served as assistant sales manager in the chemical sales department. In his new post he supervises field sales of the firm's "Versamid" polyamide resins, fatty nitrogen chemicals, "Genamid" liquid epoxy curing agents, "Gen Epoxy" resins, and "Deriphat" amphoteric surfactants, to all domestic markets.

Alfred G. DeMeurisse

New Rohm & Haas Pres.

Fritz Otto Haas, formerly executive vice-president of Rohm & Haas Co., Philadelphia, was elected president and chairman of the company's executive committee on Dec. 31 at a special meeting of the board of diretcors. Dr. Haas succeeds his father, the late Otto Haas, who died Jan. 2 at the age of 87 (see page 203 for full obituary). At the special meeting two days before his death Mr. Haas was elected honorary board chairman; Ralph Connor was elected chairman of the board; and John C. Haas was elected vice-chairman of the board replacing Dr. F. O. Haas.

Dr. Haas was executive vice president since 1953 and was a member of the executive committee since 1951. He has been a director since 1948. Dr. Connor joined Rohm & Haas as associate director of research in 1945. He continues as a member of the executive committee and as vice-president of research, a post he has held since 1948. Mr. J. C. Haas continues as a vice-president and a member of the executive committee.

—★—

New Intex Chemical V. P.

William B. Mason has been named vice-president of sales for Intex Chemical Corp., Lodi, N. J., it was announced early this month by Herman Schulman, president.

Having served most recently as general sales manager since 1957, Mr. Mason now has full charge of sales of the company's line of textile and industrial chemicals. Before joining Intex, he was district sales manager for Onyx Oil & Chemical Co., Jersey City, N. J.

—★—

Stern New Washine V.P.

Arnold Stern was appointed vice-president of sales early this month for Washine Chemical Corp., Lodi, N. J. Most recently general sales manager and prior to that assistant sales manager, Mr. Stern has been on Washine's sales staff since 1953. In his new position he is in charge of sales direction for the firm's industrial chemicals and laundries divisions. Before joining Washine he was a chemist and sales representative for United Distillers Corp. of America, New York.

Arnold Stern

—★—

SAACI Induction Meeting

The Salesmen's Association of the American Chemical Industry, Inc., New York, (SAACI) will have its annual election and induction of officers on Jan. 19 in the Grand Ballroom of the Hotel Commodore, New York. Cocktails will be served at 11:30 a.m. and luncheon at 12:30 p.m.

—★—

Colgate Appoints Two

A. Kenneth Tosh was appointed quality control manager in the household products division and John Major was named quality control manager in the toilet articles division early this month at Colgate-Palmolive Co., New York. Mr. Tosh joins the household products division after having served as toilet articles quality control manager for the past two years. In his 28 year career with Colgate, he has held several technical posts. Mr. Major went with the company in 1951 as a senior project chemical engineer in the research and development department and later moved into toilet articles quality control.

Firmenich-Glidden Pact

A long-term agreement has been reached by Firmenich, Inc., New York, and Glidden Co., Minneapolis, under which Firmenich will be exclusive distributor of most aromatic products of Glidden's organic chemical division. Effective Jan. 1, the agreement was announced last month by Dwight P. Joyce, Glidden's chairman and president and Charles C. Bryan, president of Firmenich.

Firmenich will also execute all marketing and sales development programs in connection with these aromatics and will exchange pertinent technical information with Glidden.

The Glidden research group at Jacksonville, Fla., has created and patented processes for synthetic terpene chemicals, including geraniol, linalool, citronellol and its esters, hydroxy-citronellal, citral, ionones, and methyl ionone.

Firmenich's many important discoveries are in the area of perfumery materials, such as macrocyclic musks, irone, ambergris, jasmin, violet, etc.

The joint announcement indicated that the agreement will be extended to embrace most world markets. However, Glidden continues unchanged its association with A. Boake, Roberts & Co. of London, England, in the development of new processes for producing aromatic terpene chemicals.

—★—

GAF Advances Bergman

Carl A. Bergman was recently appointed chemical sales manager-southern region, a new post for General Dyestuff Co., a sales division of General Aniline & Film Corp., New York. In his new position, Mr. Bergman directs and coordinates chemical sales at the Charlotte, N. C., and Chattanooga, Tenn., branches of the company, under C. C. Cayce, southern regional manager.

With GAF for more than 22 years, Mr. Bergman served most recently as assistant branch manager for the company's Antara Chemicals division.

FELTO
Aquarones®
THE MOST EXPERIENCED NAME
IN WATER-SOLUBLE PERFUMES

FELTON
Aquaromes®
THE MOST EXPERIENCED NAME
IN WATER-SOLUBLE PERFUMES

Atlantic's Ultrawet 35KX or KX is the first truly general purpose alkyl aryl sulfonate for a multiplicity of formulations. It is offered in either liquid or flake form for your convenience and production economy.

The unique characteristics of Ultrawet 35KX or KX are excellent solubility without the addition of a solubilizing agent and superior wetting action in hard water. Other outstanding characteristics are better mixing properties that resist caking and a degree of whiteness unequaled by competitive products.

In addition, 35KX and KX bring you the advantages of unusually low unreacted oil content and high active ingredient levels characteristic of Atlantic's full range of surfactants.

You are invited to consult Atlantic's chemically trained sales engineers on formulations employing versatile Ultrawet 35KX or KX, or for technical assistance, without obligation, on other Ultrawets to improve products or processes or for developing new applications or proposing ways to cut manufacturing costs. Write to Chemicals Division, The Atlantic Refining Company, 260 South Broad Street, Philadelphia, Pa.

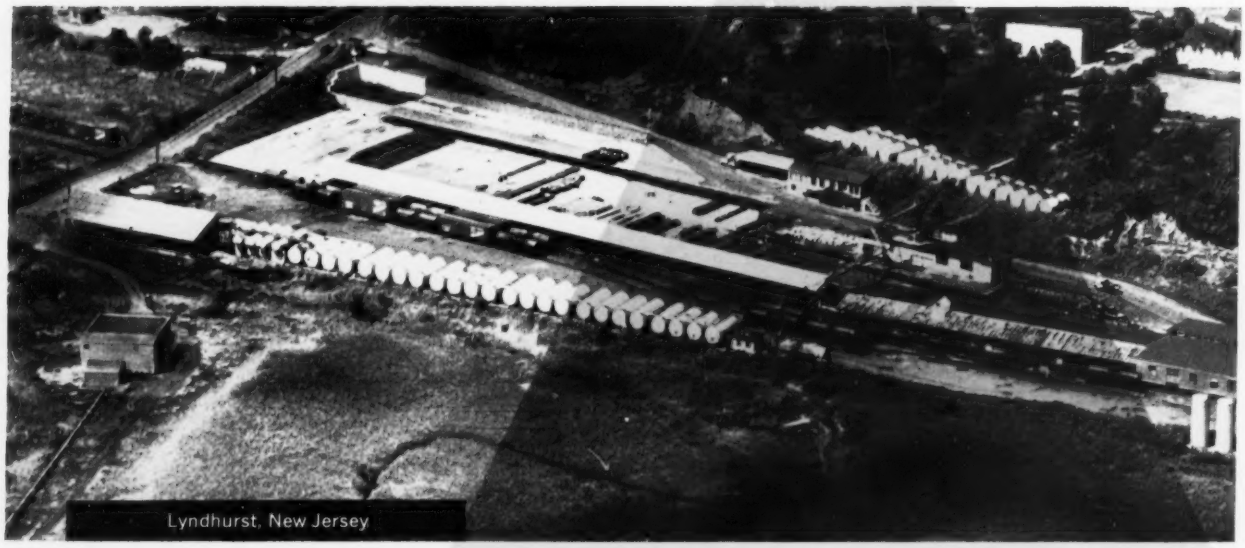
ATLANTIC
PETROLEUM
CHEMICALS

Philadelphia • Providence • Charlotte • Chicago • Los Angeles • In Canada: Naugatuck Chemicals Division of Dominion Rubber Company, Ltd. In Europe: Atlantic Chemicals SAB, Antwerp, Belgium • In South America: Atlantic Refining Company of Brazil, Rio de Janeiro

THIS WAS HUISKING IN 1910...

50th Anniversary Report:

THIS IS HUISKING IN 1960



Lyndhurst, New Jersey

Williamsport, Pennsylvania

How Huisking has kept pace with your need for industrial and fine chemicals

The Huisking story began on January 1, 1910, when Charles L. Huisking opened a drug and chemical brokerage and commission office in New York. After the 1st World War, the firm soon expanded to meet new needs, and became a major factor in the import and export of drugs and special chemicals. Manufacturing operations, on a modest scale, were started in the late 1930's, and when World War II came to a close, plans were drafted to intensify this phase of the Huisking activities. In 1956 the plant was moved to Lyndhurst, New Jersey, and its Clintbrook Chemical Company division was formed. Two years later the Glyco Chemicals division with its plant at Williamsport, Pennsylvania, greatly enlarged Huisking's manufacturing facilities and scope of operation.

Today, Huisking remains a principal factor in import, export, and distribution of pharmaceutical and industrial chemicals. Its manufacturing divisions are steadily increasing operations. Glyco Chemicals division manufactures chemicals for the needs of the food, cosmetic, plastics, paper, electronics, metals, paint and textile industries, expanding its product lists constantly. Peder Devold Oil Company division is a primary source of Cod Liver Oil, Feeding Oils and other Vitamin Oils. Clintbrook Chemical Company division produces Pharmaceutical Chemicals.

GLYCO CHEMICALS

DIMETHYL HYDANTOIN & DERIVATIVES
EMULSIFYING AGENTS
DEFOAMING AGENTS
THE TETRINES® (Sequestering agents)
POLYHYDRIC ALCOHOL ESTERS
SYNTHETIC WAXES (Acrawax C)
GLYCOMULS®
GLYOSPERSES®

PEDER DEVOLD OIL CO.

COD LIVER OIL, MEDICINAL
COD LIVER OIL, VETERINARY
DEVOLKOD® Vitamin Oils
DEVOLD VITAMIN A & D FEEDING OILS
DEVOLD VITAMIN A OILS
WHEAT GERM OIL

CLINTBROOK CHEMICAL CO.

CAMPHOR USP & Technical
CAMPHOR TABLETS
THEOBROMINE SALTS
PROCAINE BASE
PROCAINE HCL
PABA
PARA-AMINO BENZOATE Potassium & Sodium
ACETIC ACID
ACETONE
ALCOHOL PROP.
METHANOL

CHAS. L. HUISKING & CO., INC.

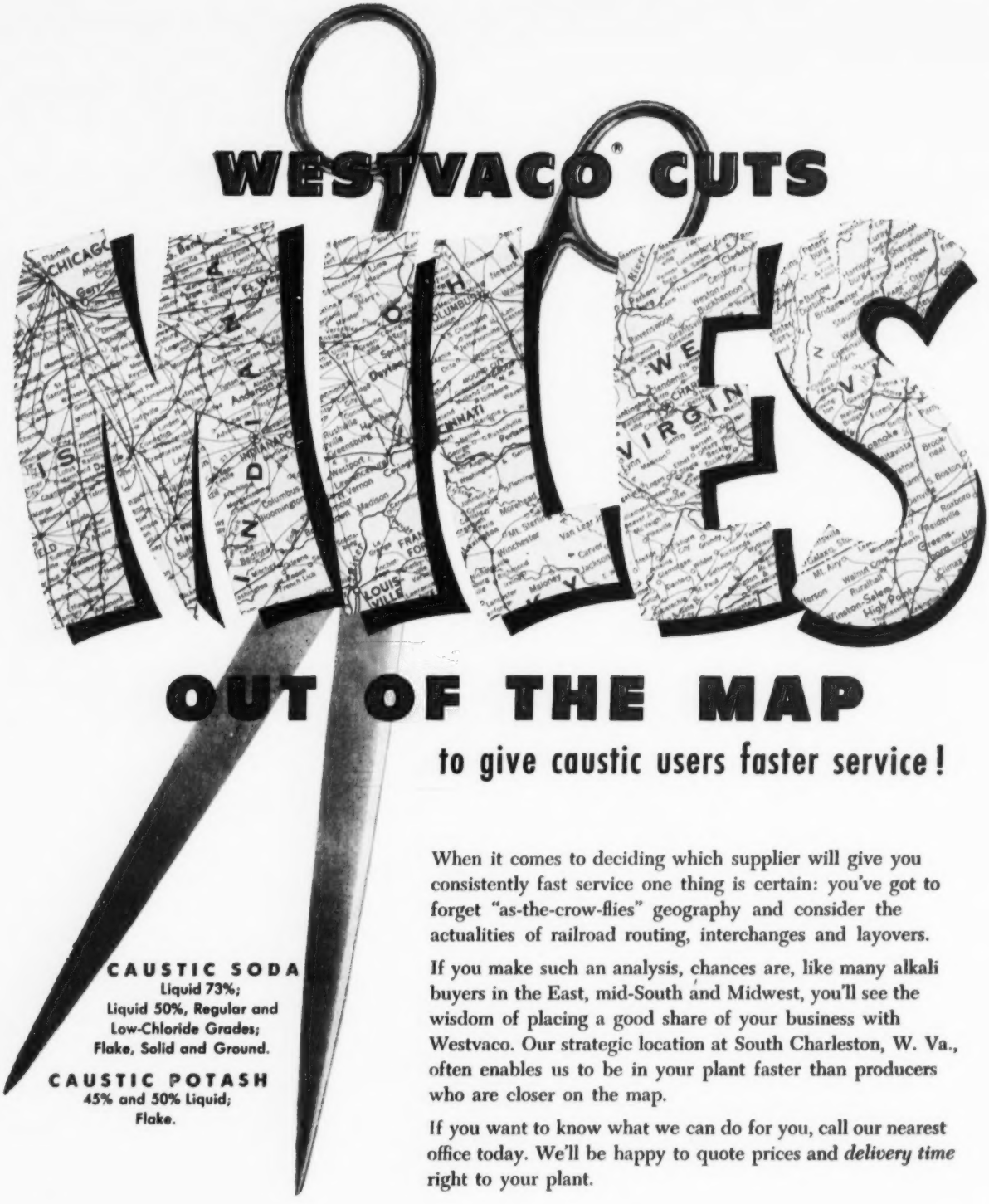
417 Fifth Avenue, New York 16, N. Y. • Telephone: ORegon 9-8400

Cables: HUISKING, NEW YORK
VITAMINE, NEW YORK
GLYCOPON, NEW YORK

Chicago Office:
435 North Michigan Avenue
Chicago 11, Illinois

Since 1910

WESTVACO® CUTS MILES OUT OF THE MAP



to give caustic users faster service!

CAUSTIC SODA
Liquid 73%;
Liquid 50%, Regular and Low-Chloride Grades;
Flake, Solid and Ground.

CAUSTIC POTASH
45% and 50% Liquid;
Flake.

When it comes to deciding which supplier will give you consistently fast service one thing is certain: you've got to forget "as-the-crow-flies" geography and consider the actualities of railroad routing, interchanges and layovers.

If you make such an analysis, chances are, like many alkali buyers in the East, mid-South and Midwest, you'll see the wisdom of placing a good share of your business with Westvaco. Our strategic location at South Charleston, W. Va., often enables us to be in your plant faster than producers who are closer on the map.

If you want to know what we can do for you, call our nearest office today. We'll be happy to quote prices and *delivery time* right to your plant.

fmc
FOOD MACHINERY AND CHEMICAL CORPORATION ®

Putting Ideas to Work

FOOD MACHINERY AND CHEMICAL CORPORATION
Westvaco Chlor-Alkali Division
General Sales Offices:
161 E. 42nd STREET, NEW YORK 17

10 LEADING DERIVATIVES among our AMPHOTERIC SURFACTANTS*

The following Miranol Amphoteric Surfactants constitute ten of our leading derivatives, some of which differ primarily in their fatty acid radical and others which represent modifications through intricate chemical reactions. Each one has particular advantages to offer for specific uses.

*U. S and Foreign Patents

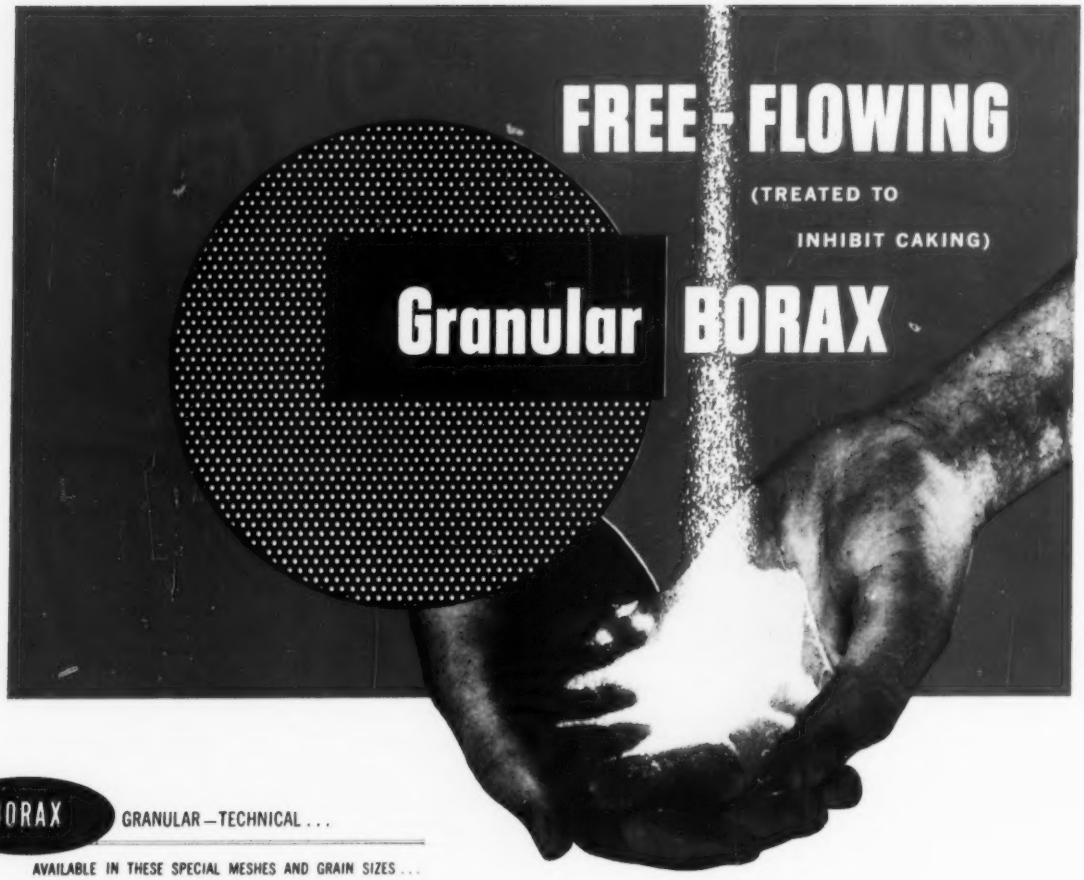
Product	Derivative	Main Uses	Form	Remarks
Miranol CM CONC.**	Coconut Monocarboxylic	Detergent	Liquid	General purpose high alkali and stable grease emulsifying agent. An outstanding detergent with exceptional wetting power. Extreme chemical and physical stability over entire pH range. High tolerance for alkalies and electrolytes. Fully compatible with all anionic, cationic and non-ionic agents. Specially suited for liquid heavy duty household and industrial cleaners, liquid steam cleaning compounds, white wall tire cleaners, etc.
Miranol C2M CONC.**	Coconut Dicarboxylic	Detergent	Liquid	For cosmetic and pharmaceutical applications. Outstandingly mild, non-irritating surfactant, yet with extremely high tolerance . . . up to 50% for alkalies and/or electrolytes. Uses . . . shampoos, creams, lotions, topical applications, heaviest duty liquid cleaning compounds, liquid household laundry compounds. Partly interchangeable with Miranol CM CONC.
Miranol HM CONC.	Lauric	Detergent	Liquid	Interchangeable with Miranol CM CONC. Suggested for applications where a pure lauric derivative is basic requirement.
Miranol SM CONC.**	Capric	Detergent Emulsifier	Liquid	Outstanding detergent with exceptional spreading but low penetrating properties. Specifically recommended for medicated shampoos, on location rug shampoos, germicidal hand soaps and soap detergent combinations. Polymerization emulsifier. It has greatest surface tension reducing properties of all Miranol surfactants.
Miranol OM-SF CONC.	Oleic	Detergent Emulsifier	Liquid	Salt free amphoteric detergent and emulsifier. For low priced high viscosity cleaning formulations, non-absorbency build-up preventive in cationic home laundry softeners.
Miranol L2M-SF CONC.	Linoleic	Detergent	Liquid	Detergent capable of holding alkalies and electrolytes in emulsions such as cleaning waxes. Does not readily redissolve.
Miranol JEM CONC.	Octoic	Wetting	Liquid	Wetting agent for use in solutions containing 3 to 23% caustic soda, as well as other solutions of high solid content. Used in dairy cleaners, bottle washing, food peeling, alkaline degreasing, mercerization, kier boiling, etc.
Miranol DM	Stearic	Softener	Paste	Low priced fabric softener and hair conditioner.
Miranol MSA Modified	Amphoteric Salt	Detergent	Liquid	Non-irritating to skin and eyes and non-eyestinging shampoo base, also for impregnating paper and fabric for skin and body wash, etc.
Miranol 2MCA Modified	Amphoteric Salt	Detergent	Liquid	Same as MSA Modified.

***Also available in salt-free form.*

Samples and technical information upon request for above and other Miranol Derivatives.

MIRANOL

THE MIRANOL CHEMICAL CO., INC.
275 COIT STREET,
IRVINGTON, N. J.
Tel: ESsex 4-2500



BORAX GRANULAR—TECHNICAL . . .

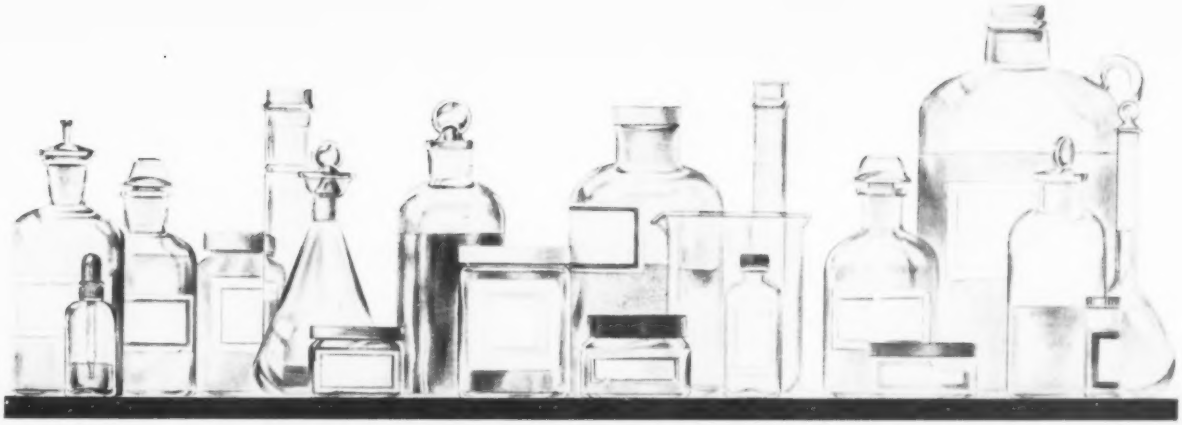
AVAILABLE IN THESE SPECIAL MESHES AND GRAIN SIZES . . .

Name & Screen Designation	Typical Particle Size Range U. S. Standard Sieve No.		Screen Specification U. S. Standard Sieve No. When Packed	
Granular 8/40 (Special Mesh)	+ 8 + 40	Nil 96.8%	+ 45	min. 95%
Granular 8/60 (Special Mesh)	+ 8 + 60	Nil 80.0%	+ 8 +100	none min. 90%
Granular 30/60 (Special Mesh)	+ 30 + 60	0.5% 69.8%	+ 30 +100	max. 1% min. 80%
Granular 30/70 (Special Mesh)	+ 30 + 70	0.3% 71.0%	+ 30 + 40	max. 1% max. 20%
Granular 30/80 (Special Mesh)	+ 30 + 80	0.8% 76.6%	+ 30	max. 1%
Granular 30/100 (Special Mesh)	+ 30 +100	Nil 86.7%	+ 35 +100	none min. 85%
Granular 40/100 (Special Mesh)	+ 40 +100	Nil 89.0%	+ 40 +100	max. 0.5% min. 88%
Granular 40/140 (Special Mesh)	+ 40 +140	0.1% 88.8%	+ 35 +100	none min. 50%
Granular 40/200 (Special Mesh)	+ 40 +200	0.1% 84.1%	+ 30	none
Granular 60/200 (Special Mesh)	+ 60 +200	0.1% 66.7%	+ 60	max. 1%
Granular 80/200 (Special Mesh)	+ 80 +200	2.0% 67.6%	+ 60 + 80	none max. 5%

Powdered Hand Soaps are better performers when borax is part of their make-up. They work better in any water — cut grease quicker — and feel smoother. Our granular borax is free-flowing and 100% soluble. This material is now available to you in any of the many special uniform meshes listed at left. Samples, bulletins, or technical advice can be obtained from the sales office nearest to you. Write today!

U.S. BORAX & CHEMICAL CORPORATION

- **NEW YORK** · 50 Rockefeller Plaza, New York 20
- **CALIFORNIA** · 630 Shatto Place, Los Angeles 5
- **ILLINOIS** · 3456 Peterson Avenue, Chicago 45
- **GEORGIA** · 1145 Peachtree Street, Atlanta 9
- **MISSOURI** · 4150 Laclede Avenue, St. Louis 8
- **OHIO** · 5012 Euclid Avenue, Cleveland 3
- **PENNSYLVANIA** · 302 Wilford Bldg., Philadelphia 4



IF NOTHING HERE WILL DO IT...

TAKE A LOOK AT **TRIS AMINO!**

This unique chemical may be just what you're looking for

Tris(hydroxymethyl)aminomethane is a primary amine with three hydroxy groups. This reactive nitroparaffin derivative has great potential in chemical synthesis. In manufacture of resins, drying oils, surface-active agents. In preparation of cosmetic creams, textile specialties, cleaning compounds, etc. Evaluate Tris Amino. Mildly alkaline Tris Amino is a good buffering agent and CO_2 absorbent for biological systems.

PROPERTIES

Chemical Formula	$(CH_2OH)_3CNH_2$
Molecular Weight	121.14
Boiling Point, °C	219 to 220 at 10mm
Melting Point, °C	171 to 172
pH of 0.1M Aqueous Solution at 20°C	10.4
Solubility in Water at 20°C, g/100 ml	80

WRITE FOR SAMPLE AND TECHNICAL DATA— FILL OUT COUPON TODAY!

Industrial Chemicals Dept.
Commercial Solvents Corp.
260 Madison Ave., New York 16, N. Y.

Please send me

☐ Sample of Tris Amino.
☐ Technical Data on Tris Amino.

Name_____
Title_____
Company_____
Street_____
City_____ Zone_____ State_____

INDUSTRIAL CHEMICALS DEPARTMENT

COMMERCIAL SOLVENTS CORPORATION

260 MADISON AVE., NEW YORK 16, N. Y.

Atlanta • Boston • Chicago • Cincinnati • Cleveland • Detroit • Kansas City
Los Angeles • New Orleans • Newark • New York • St. Louis • San Francisco

IN CANADA: McArthur Chemical Co. (1958) Ltd., Montreal • IN MEXICO: Comsolmex, S. A., Mexico 7, D. F.

You get lowest-cost compounding flexibility with Monsanto detergent phosphates . . .

THE ONE "RIGHT" STP DENSITY FOR EACH PRODUCT YOU CAN MAKE

(SODIUM TRIPOLYPHOSPHATE)

In your search for new and improved detergent products, take a new look at what Monsanto STP can do for you. From *three* STP densities, Monsanto can always deliver the one "right" density for *each* product you make . . . give you lowest-cost compounding flexibility to best meet every detergent-building need.

EXAMPLE: Monsanto's light-density STP gives you the faster solution rates you need at high concentrations or low temperatures. It will carry the most liquid active and still remain free-flowing. And because Monsanto's light-density STP stays granular and low dusting, it causes no irritation in the plant, resists caking and gives uniform bulk.

You get lowest cost when you make one-stop volume-discount purchases—and Monsanto gives you the opportunity to carry out one-stop purchasing most often. You can get any one STP density *or combination of densities* in mixed shipment with the widest variety of sodium and potassium phosphates available—as well as with a complete line of SANTOMERSE (anionic) and STEROX (nonionic) surface-active agents!

In bag, drum or carload, each density of Monsanto STP is immediately available from a plant, warehouse or service-minded distributor near you. For more information, use the convenient coupon.

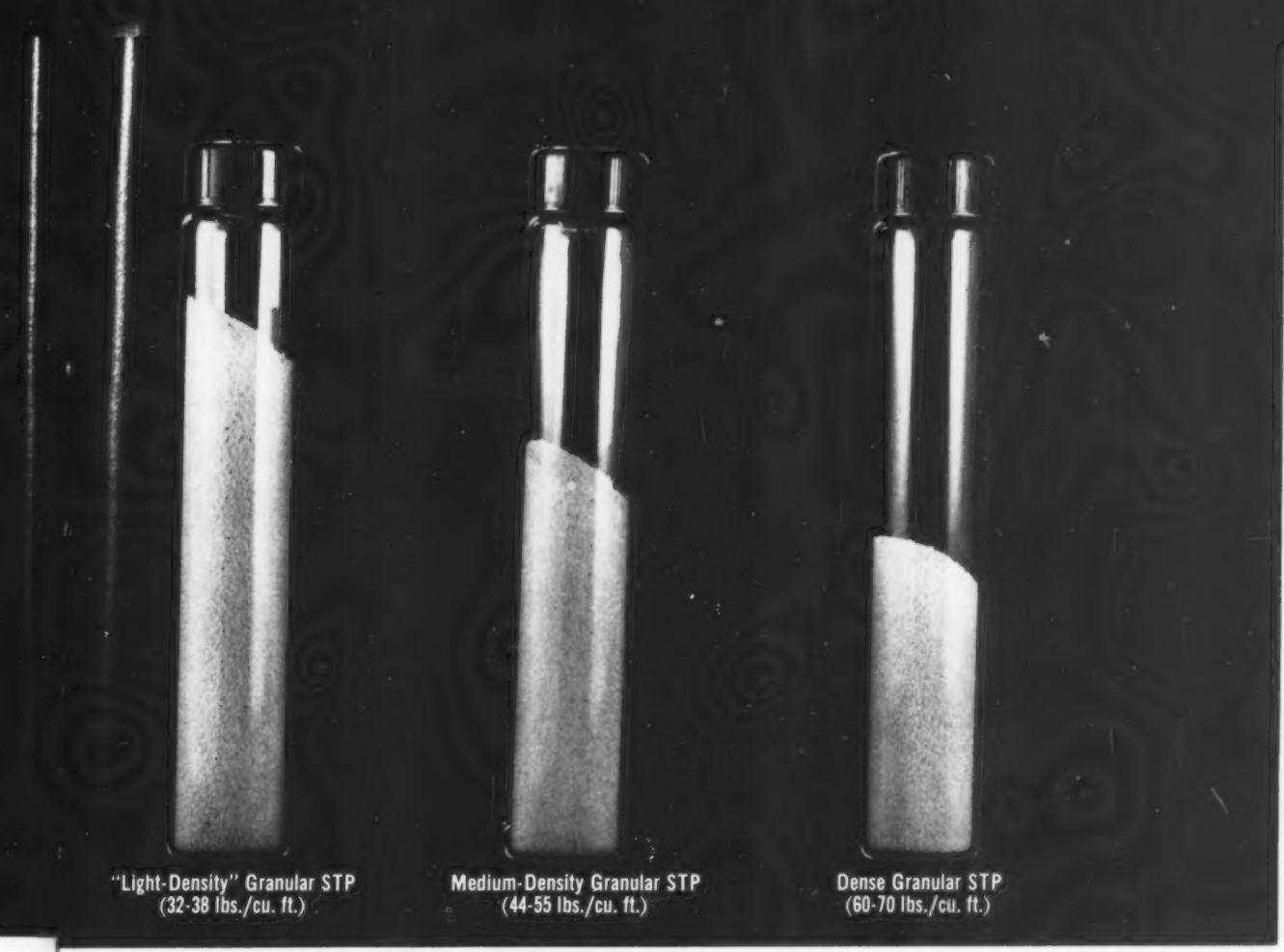
Santomerse, Sterox: Monsanto T.M.'s., Reg. U. S. Pat. Off.

For low-dusting granules that soak up liquid active

For free-flowing, fast-dissolving dry compound

For mo... bulk

With no bias in favor of any single STP density, Monsanto draws from broad, basic knowledge of all detergent phosphates to answer your specific compounding questions.



"Light-Density" Granular STP
(32-38 lbs./cu. ft.)

Medium-Density Granular STP
(44-55 lbs./cu. ft.)

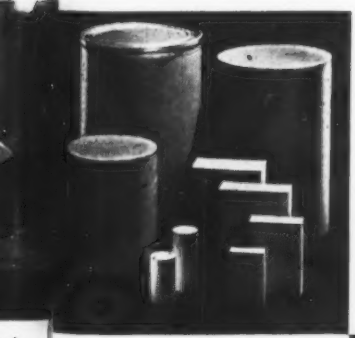
Dense Granular STP
(60-70 lbs./cu. ft.)

Vials contain exactly the same weight of STP

For greater liquid loading of your dry detergents, for faster dry detergent solution rates, for more bulk and low-dusting . . . specify Monsanto *"light-density"* STP.

For profitable repeat sales for your regular line, make Monsanto's *medium-density STP* your standard. You can always trust in highest quality and uniformity.

To cut packaging costs, you can decrease the bulk and container sizes for your industrial detergent compounds by specifying Monsanto *dense granular STP*.



For most profitable compound bulk and package size

Let this 36-page Guidebook or, better yet, a Monsanto representative give you more facts about industry's largest and most diversified line of phosphates. Just fill in the coupon.

FOR STP SAMPLES, GUIDEBOOK, PERSONAL SERVICE—USE COUPON

Monsanto

WHERE CREATIVE CHEMISTRY WORKS WONDERS FOR YOU

Monsanto Chemical Company
Inorganic Chemicals Division
Department 92, St. Louis 66, Missouri

I would like to have a:

☐ copy of Monsanto's 36-page Guidebook

8-oz. sample(s:) ☐ light-density STP ☐ medium-density STP ☐ high-density STP

☐ Monsanto representative contact me.

Name.....(Title).....

Company.....

Address.....

City.....Zone.....State.....

HOW FMC SERVES THE CHEMICAL INDUSTRY

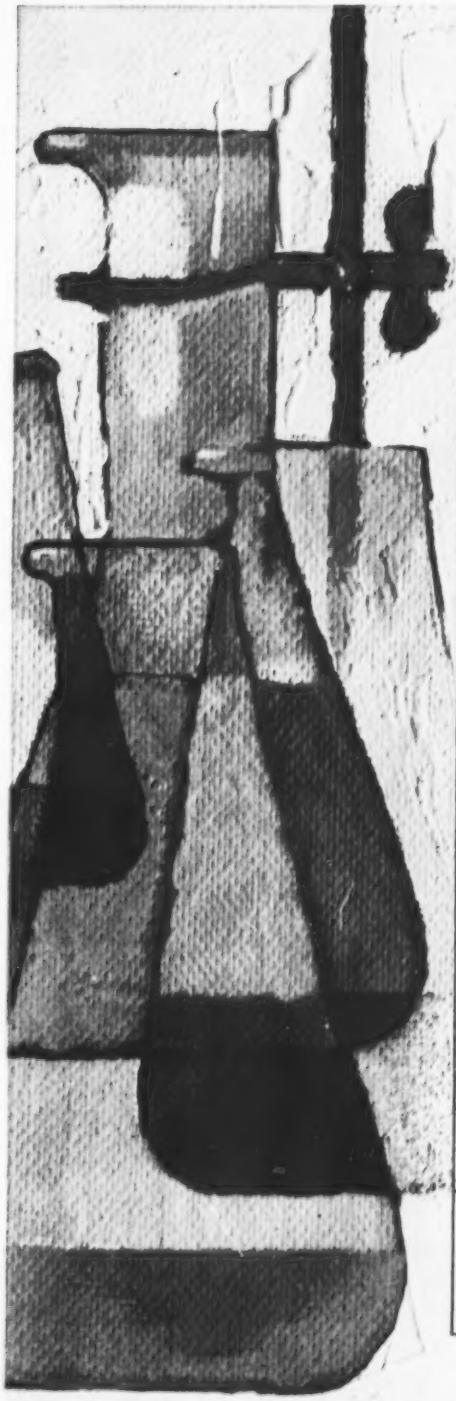
During the past decade, FMC has become one of the most progressive producers of basic chemicals for industry, agriculture, and national defense. Shown on the right are FMC's operations that serve the chemical industry. Producing organic and inorganic chemicals, as well as a variety of machinery products, these divisions represent a balanced network of processing plants, and raw materials and production facilities.

In addition, FMC is a principal factor in the petrochemical field through joint ownership of Petro-Tex Chemical Corporation, major producer of butadiene, butene, butylene, isobutylene, diisobutylene, triisobutylene, and alkylate.

Our company's dynamic progress as a supplier of basic chemical materials for industry and agriculture has resulted from aggressive programs directed at continual expansion and modernization of research and production facilities, together with development of strategic raw materials sources.

Progress of this sort highlights FMC's policy of planned diversification in three primary fields: **Basic Chemicals, Industrial and Agricultural Machinery, and Military Defense Materiel.**

For complete listing of our products and services, contact FMC, Dept. PRA, Box 760, San Jose, California.



BECCO	**Becco Chemical Division:** Peroxygen chemicals including hydrogen peroxide, peracetic acid, persulfates, sodium perborate
fmc	**Chemicals and Plastics Division:** Organic chemicals, plasticizers, plastics, allylic and epoxy resins and chemicals
FAIRFIELD	**Fairfield Chemicals:** Basic chemicals for formulators of household and commercial pesticides
Niagara	**Niagara Chemical Division:** Insecticides and fungicides; weed killers; industrial sulphurs
Westvaco	**Westvaco Chlor-Alkali Division:** Alkalis, chlorine, chlorinated solvents, carbon bisulfide, soda ash
Westvaco	**Westvaco Mineral Products Division:** Sodium and potassium phosphates, phosphoric acid, barium and magnesium chemicals, sodium sulfide
"Chicago"	**Chicago Pump Company:** Sewage and industrial waste treatment equipment
fmc	**FMC Packaging Machinery Division:** Filling, packaging, and paper box machinery; bag makers; wrapping machines; paper and film converting equipment
J.BEAN	**John Bean Division:** Industrial high-pressure reciprocating pumps
PEERLESS PUMPS	**Peerless Pump Division:** Complete lines of centrifugal pumps for CPI
fmc	**Packing Equipment Division:** Drum and case automatic handling and warehousing systems
Petro-Tex	**Petro-Tex Chemical Corp.:** Butadiene, Butene-1, Butene-2, Butylene, isobutylene, diisobutylene, triisobutylene, alkylate *50% owned by FMC and Tennessee Gas Transmission Co.

Putting Ideas to Work

fmc
FOOD MACHINERY AND CHEMICAL CORPORATION

FOOD MACHINERY AND CHEMICAL CORPORATION

Executive Offices: San Jose, California

ADMINISTRATIVE OFFICES: Machinery Divisions, and Defense Materiel, San Jose, California
® Chemical Divisions, New York City • FMC International, San Jose, California; New York City

QUALITY

TALL OIL

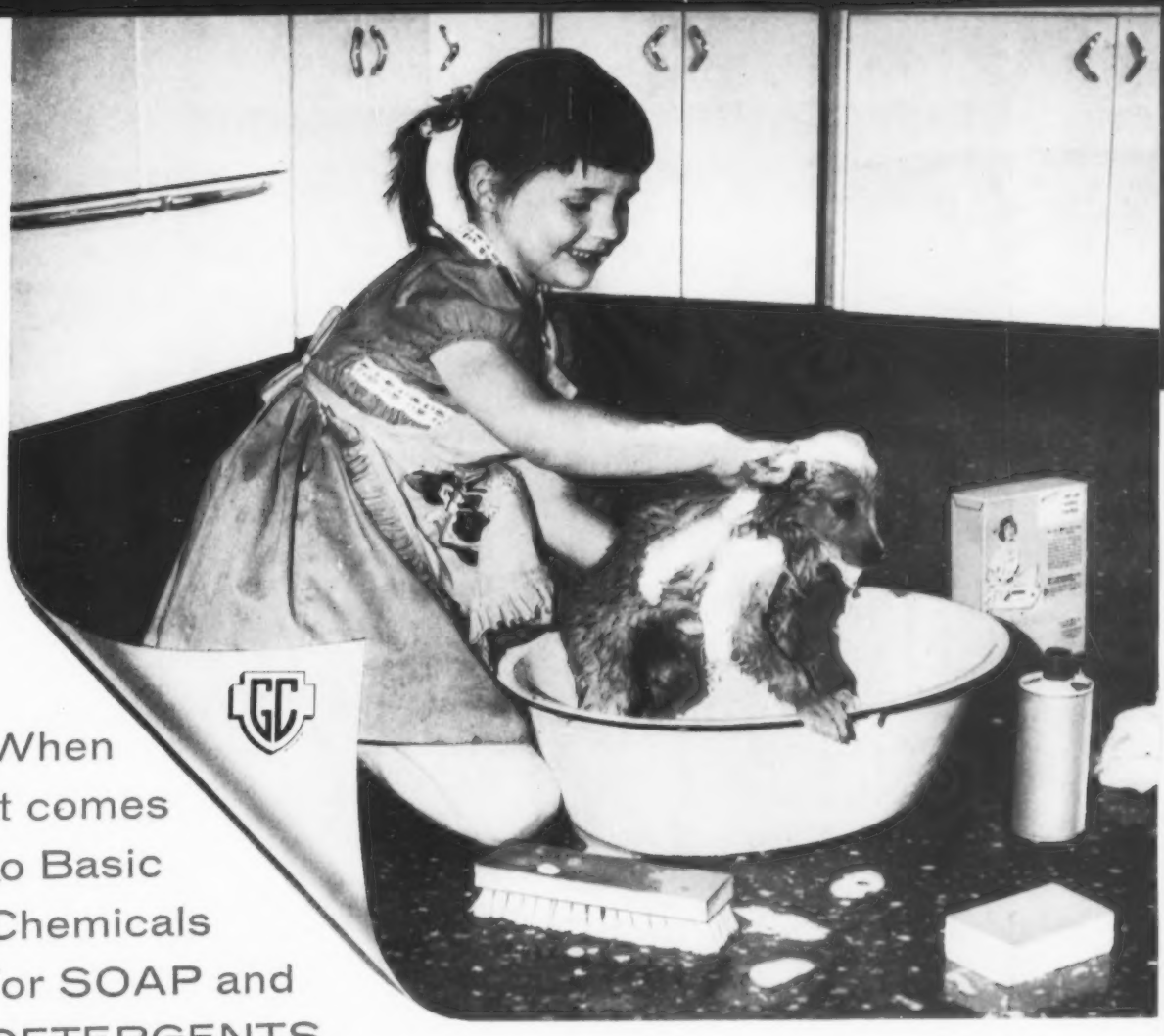
FOR THOUSANDS OF SOAP FORMULATIONS

Thousands of soapmaking formulations call for tall oil and its derivatives. For their supplies of these essential materials, leading soap manufacturers turn to Arizona. These industry leaders know they can rely on the uniformity of Arizona's quality tall oil products. Uniformity that saves time and money, eliminates formulation adjustment, keeps processes constant, product quality consistent. They also rely on the swift dependability of Arizona service. Discover how you can benefit from Arizona quality, uniformity and service. Call Arizona next time you need tall oil.

ARIZONA
CHEMICAL COMPANY
30 ROCKEFELLER PLAZA, NEW YORK 20, N. Y.

DISTRIBUTORS: A. J. Lynch & Company, Los Angeles, Alameda • Charles Albert Smith Ltd., Toronto, Montreal, Vancouver • T. G. Cooper & Company, Inc., Philadelphia • Farac Oil and Chemical Company, Chicago • George E. Moser & Son, Inc., Detroit • Donald McKay Smith Company, Cleveland • Thompson-Hayward Chemical Company, Houston and New Orleans • Van Waters & Rogers, Inc., Dallas • N. S. Wilson & Sons, Boston • M. J. Daly Company, Ludlow, Ky. • Great Western Chemical Company, Seattle, Spokane, and Portland (Oregon) • Welch, Holme & Clark Company, Inc., New York • Whitaker Oil Co., Atlanta, Georgia

ACINTOL® Products:
ACINTOL D and ACINTOL DLR Special Distilled Tall Oil • ACINTOL FA 1, FA 1 Special and FA 2 Tall Oil Fatty Acids • ACINTOL R Tall Oil Rosin • ACINTOL P Tall Oil Pitch • ACINTENE® Terpenes



When it comes to Basic Chemicals for SOAP and DETERGENTS

...come to General Chemical!

There are good basic reasons for making General Chemical your source of supply for basic chemicals. Our large-scale production is one. Long experience is another. And there are many more—including consistent high quality and uniformity of product... top-notch technical service... a coast-to-coast network of plants and distribution points... plus efficient follow-through from order to delivery and beyond that to satisfactory performance. That's why—when it comes to basic chemicals—it's wise to come to General Chemical for all these products....

- Sulfuric Acid
- Oleum
- Sulfan® Stabilized Sulfuric Anhydride
- Hydrochloric Acid (Muriatic)
- Disodium Phosphate
- Trisodium Phosphate, Crystal and Flake
- Tetrasodium Pyrophosphate
- Sodium Tripolyphosphate, Powder and Granular
- Sodium Silicate, Solutions
- Sodium Metasilicate, Anhydrous and Crystal
- Sodium Sulfate, Anhydrous
- Aluminum Sulfate
- Aluminum Chloride, Solution
- Sodium Thiosulfate, Anhydrous and Crystal
- Sodium Sulfite
- Sodium Bisulfite, Anhydrous
- Sodium Bifluoride
- Sodium Silicofluoride
- Genetron® Aerosol Propellants

Baker & Adamson® Laboratory Reagents

Basic to America's Progress

Allied Chemical

GENERAL CHEMICAL DIVISION
40 Rector Street, New York 6, N. Y.

DIRECT FROM *COMMERCIAL* DISHWASHER TO TABLE

Hand polished? No! Washed and rinsed in a commercial dishwasher . . . but with one important difference. TRITON CF-10 was included in the built detergent used, *and* in the final rinse additive. More and more fine eating places now use this double protection to insure spotless crystal, china and silver.

Whether you recommend the use of either a detergent or a rinse additive based on TRITON CF-10 . . . *or both* . . . you'll be ahead in satisfaction and sales. Why make and sell commercial dishwashing compounds on price alone? Your customers are now looking for performance! Give it to them with TRITON CF-10. Write for formulating help.

Chemicals for Industry

ROHM & HAAS COMPANY

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

TRITON *is a trademark, Reg. U.S. Pat. Off. and in principal foreign countries.*

TRITON CF-10

HAARMANN & REIMER

SPECIALTIES

AGRUMEN ALDEHYDE

Refines the fresh green note. Adds a fresh and piquant note to Eau de Cologne and Citrus type perfumes. Also useful as top note in Pine odors.

INDOFLOR H & R

The Indole note without discoloration, for use in cosmetics and soaps.

MUGOFLOR

Of true Muguet quality. It is a marvellous blending agent. Tenacious, intense, yet of fine floral character. Non-discoloring.

LILAC 9830 W. O. J.

For many years a world renowned Lilac, very true to nature. Outstanding base for creams, perfumes, and lotions.

NEROFLOR

Flowery with a pronounced odor of Neroli Oil and Orange Blossom with an interesting animal under-note. Non-discoloring and an excellent fixative.

Write for our complete list of specialties and other aromatic chemicals.

VERONA

REGISTERED TRADEMARK

VERONA AROMATICS

A DIVISION OF VERONA-PHARMA CHEMICAL CORP.

Plant and Main Office: 26 VERONA AVENUE, NEWARK 4, N. J. • Branch Office: 1210 ROSEDALE AVENUE, CHICAGO, ILL.

TECHNICAL BOOKS

CHEMICAL SPECIALTIES • DETERGENTS • SOAPS

INSECTICIDES • DISINFECTANTS • TOILETRIES

☐ **1. Analysis of Insecticides and Acaricides,** by Gunther-Blinn. 706 pages, 72 illus., 50 tables. Complete treatise on sampling, isolation and determination, including residue method. Price: $15.00.

☐ **2. Organic Solvents,** completely revised second edition by Riddick and Toops. 560 pages including tables of physical properties of 254 solvents. Covers physical properties and methods of purification. Price: $10.00.

☐ **3. Surface Active Agents and Detergents,** by Schwartz-Perry. Two volumes. Volume I: 590 pages, 51 illus., 4 tables. Covers processes for synthesizing and manufacturing surface active agents, physical chemistry of surface active agents and practical applications of surface active agents. Price: $13.50. Volume II: Approximately 860 pages, approximately 26 illus. and tables. Covers processing for synthesizing and manufacturing surfactants, special function surfactants and compositions, the physical and colloidal chemistry of surfactants and practical applications of surfactants. Price: $19.50.

☐ **4. Detergent Evaluation and Testing,** by Jay C. Harris. 220 pages, 26 illus., 15 tables. A critical selection of methods and procedures for the testing of detergents. Price: $4.50.

☐ **5. Organic Insecticides,** by R. L. Metcalf. 402 pages, 7 illus., 70 tables. Covers most organic insecticides, their chemistry and their mode of action. Price: $10.00.

☐ **6. Advances in Pest Control Research,** edited by R. L. Metcalf. Volume I: 522 pages, 11 illus., 13 tables. Covers the most recent advances in all phases of the applied science of pest control. Price $12.50. (Volume II also $12.50)

☐ **7. Modern Chemical Specialties,** by Milton Lesser. 514 pages, 22 illus. Covers formulation, properties and uses of some fifty types of household, industrial and automotive chemical specialties. Price: $7.25.

☐ **8. Handbook of Cosmetic Materials,** by Greenberg-Lester. 467 pages. Covers the properties, uses and toxic and dermatological actions of over 1,000 materials selected in response to a questionnaire sent to cosmetic manufacturers. Includes a chapter on the skin by Howard W. Haggard, Director, Applied Physiology Laboratory, Yale University. Price: $13.50

☐ **9. Soap Manufacture,** by Davidson et al, in two volumes. Volume I: 537 pages, 66 illus., 118 tables. Covers the history of the soap industry, theoretical principles of soap manufacture, raw materials of soap manufacture and the fatty raw materials. Price: $13.50. (Volume II in preparation)

☐ **10. Cosmetics: Science and Technology,** edited by Edward Sagarin. 1453 pages, 138 illus., 107 tables. Covers origin, development of cosmetic science and discusses individual products such as hand creams, suntan preparations, skin lighteners, shaving soaps and creams, nail polishes and removers, deodorants, aerosol cosmetics and many other cosmetic and toiletry products. Price: $27.50.

☐ **11. Industrial Oil and Fat Products,** by Alton E. Bailey. 991 pages, 164 illus. 133 tables. Covers the nature of fats and oils, their composition and structure; raw materials; industrial utilization. Price: $18.00.

☐ 12. Fatty Acids, by Klare S. Markley. 678 pages, 81 illus., 163 tables. The chemistry and physical properties of fats and waxes. Price: $14.50.

☐ **13. International Encyclopedia of Cosmetic Material Trade Names,** by Maison G. de Navarre. Nearly 400 pages of the most complete listing of all the materials of the world used in cosmetic manufacture. Includes quick, concise descriptions of approximately 4,000 materials and the names and addresses of the suppliers, as well as a cross-index of the materials and their uses. Price: $7.50.

☐ 14. Pressurized Packaging (Aerosols), by A. Herzka and J. Pickthall. 411 pages, 19 chapters, well illustrated. The first complete work on aerosols yet to be published. Covers propellants, filling techniques, laboratory testing, dispenser components, and formulations of most aerosol products. Includes an index of aerosol trade names and glossary of terms. Price: $12.00.

Check must accompany order

MAC NAIR-DORLAND CO.
254 West 31st St., New York 1, N. Y. (Add 3% sales tax if in New York City)

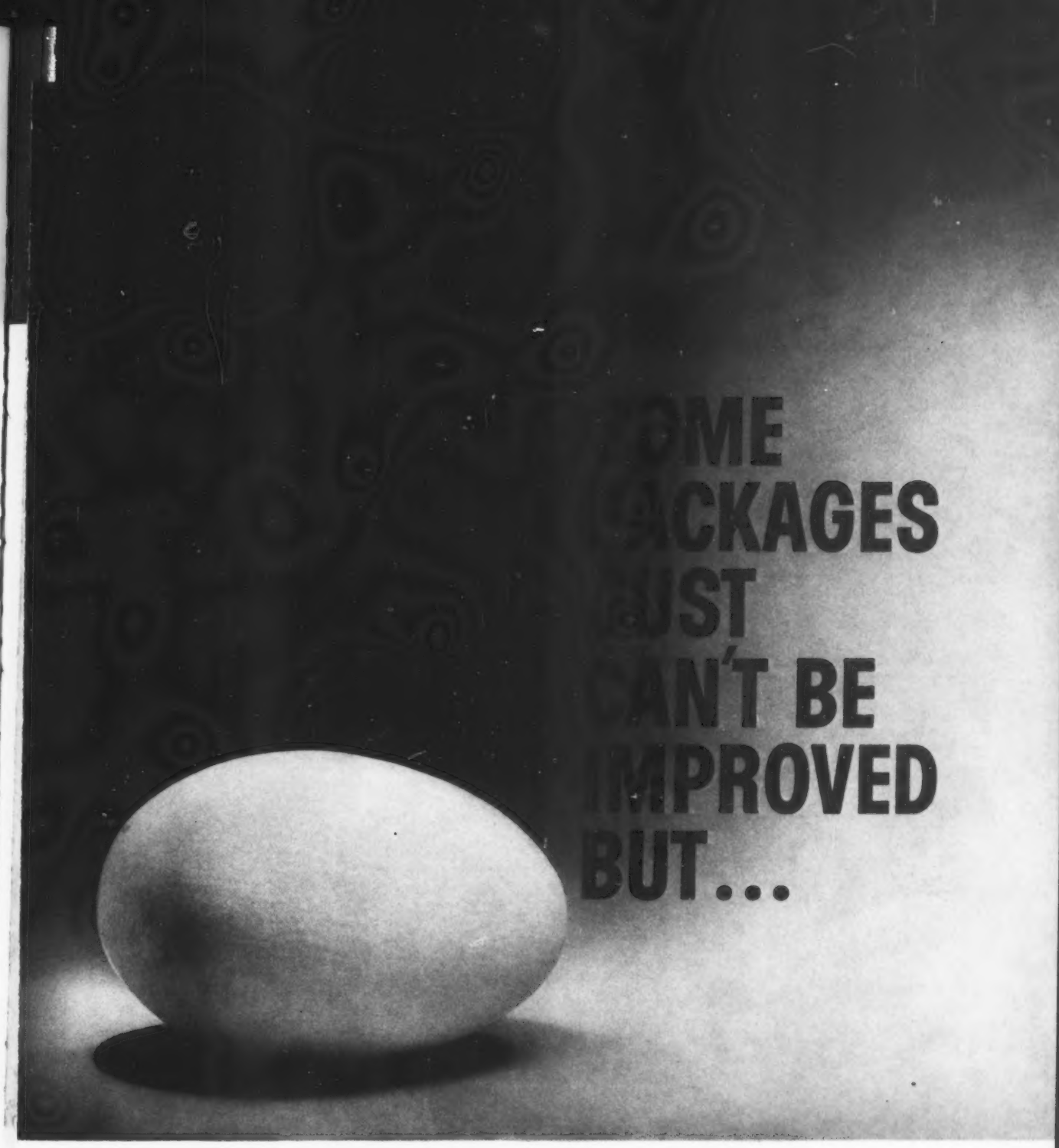
Enclosed find check for $..... for which send me the books checked above.
Return this page with check. All books postage paid within U. S. A. All others add 50c additional postage and handling charge.

Company .....

Address .....

City ..... State .....

By .....



. . . others can, and improving them is our specialty. Plax concentrates on packaging in plastics. We design and manufacture, in hundreds of shapes and sizes, plastic containers that squeeze, spray, pour, drip or "carry"—for foods, drugs, cosmetics, detergents and industrial liquids. Some examples of packaging designed by Plax for leading companies are shown on the pages following.

PLAX®

PLAX
GIVES A PACKAGE
A PLUS

YOU'RE IN THE BEST OF COMPANY...

Today's plastic containers, properly designed and fabricated, are far more attractive, safer and easier to handle than glass or metal. More important, the modern touch of "squeeze-bottle" plastic can move your products off the store shelf quickly and profitably. Many companies, once doubters, are now enthusiastic users.

WHEN YOU USE PLAX CONTAINERS

The large staff of Plax designers and engineers, working with your specialists, can give your package unique styling and functional advantages. Plax is the foremost producer of plastic containers, with the largest manufacturing capacity in the industry.

PLAX

PLAX GIVES A PACKAGE A PLUS

OVER WEIGHT IS BAD FOR PEOPLE AND SALES

For over 100 years, shippers have used heavy, old-fashioned glass bottles. The new square plastic 1-gallon container by Plax, shown here, weighs only 3 ounces —15 times lighter than the glass bottle it replaces! Startling savings in freight costs, too, and no breakage or disposal problems. Industry is buying them by the thousands for shipping a wide variety of liquids... from chocolate syrup to sulfuric acid.

Plax Corporation, Hartford 1, Conn.
In Canada, Plax Canada Ltd., Toronto

PLAX

PLAX GIVES A PACKAGE A PLUS

. . . IN BRIEF

as the editor sees it . . .

HAZARD LABELS . . . Hazardous substances labeling bills introduced in the last session of Congress are again being actively considered at the current session. Hearings on Senate bill, S-1283, will undoubtedly be held early this year. This bill is generally acceptable to the chemical specialties manufacturers and its early passage will be urged by the industry at the hearings. Its chief benefit will be to set a pattern for future state legislation and to avoid if possible badly conceived laws of a conflicting nature which might be considered by individual states.

Obviously, manufacturers of products which may be hazardous cannot afford to label their products differently for each state. To a degree, this has happened in the past in some types of legislation and practical chaos has been the result. If the states will follow the well-thought-out pattern of the federal law, obviously the problem will be simplified. It is with this thought in mind that CSMA and leading manufacturers in the field are giving their full support to the new proposed legislation.

* * * * * *

1960 . . . Although 1960 opens up under a full head of steam for most businesses, they tell us that things are going to get even better next year. We hear predictions of unprecedented prosperity for the "Fabulous Sixties." Big orders, big jobs, big wages, big everything! It seems that we are due to knock the lid right off our old economy. Well, if we are, let's hope that it is not history repeating itself.

This talk of the "Fabulous Sixties" may be solid as a rock, based on unimpeachable economic facts. But it still gives us a chill. We lived through 1929 and the decade which immediately followed. And many of these predictions remind us of 1929 when the "old order" was consigned to the junk heap and we all entered a new world of continuous and everlasting prosperity. Truck drivers wore silk shirts to work and "two chickens in every pot" became a national slogan. Then came the cold, gray dawn.

With the outlook so bright, we hate to be accused of pessimism. And really, we're not pessimistic. We were burned once and we're just careful. Basically, we feel that 1960 should be a good year, — that it might taper off a bit toward the end. Business has a habit of getting tired when things are too good. So let's forget this "Fabulous Sixties" dream and just stick to our knitting. And business should stay real good for a long time.

* * * * * *

ADVERTISING . . . Boys, we got a hunch that the old Federal Trade Commission could close in on us any day now. As a matter of fact, the commission had one wax maker on the pan just last month. Some of our alleged scientific (sic) advertising of detergents, shampoos, cosmetics, cigarettes, automobiles, foods, *et al*, has aroused the ire of members of that august body, Congress. And they have told FTC to turn on the heat. That could mean trouble. When Congress tells any government department to turn on the heat, invariably the heat is turned on.

Now the boys of FTC know their way around too. When they decide to go after some outfit, do they pick on little Joe Blow out in Honkville? Not that we can notice. They pick 'em big and strong so when they throw the male-factor, if they do, it gets in the papers. Normal-

Increasingly the product of choice...

SINDAR'S G-11® (HEXACHLOROPHENE U.S.P.)

Here are the facts which have convinced so many leading manufacturers of soaps and cosmetics that G-11 is the most effective germicide and deodorant available.

Deodorant Action: Scientific studies have proved that G-11 remains on the skin even after washing. It therefore provides *continuous* control – between washings – of bacteria that cause perspiration odor.

Proof of Skin Degerming: 40 independent investigators agree that G-11 reduces the bacterial population of the skin by 95% or more. 150 scientific publications attest to its effectiveness. Over 95% of America's hospitals use it for surgical scrub and other purposes.

Consumer Acceptance: More consumers buy G-11 – Hexachlorophene – soaps than any other deodorant bar. Hexachlorophene is known to millions of people.

Soap Compatibility and Stability: G-11 is effective in *all* types – bar, powder, and liquid soaps and detergents. It is also non-corrosive, alkali stable, effective at all pH's.

Non-Irritation of the Skin: Established by its use in billions of cakes of soap and millions of units of cosmetic and pharmaceutical products such as lotions, oils, powders and ointments for babies as well as adults.

Quality: All production meets U.S.P. specifications.

Availability: Immediate shipment of truck or carload quantities from stock. Available around the world.

Technical Service: Sindar discovered hexachlorophene, holds the patents, pioneered its use in antiseptic and deodorant soaps, and is ready to assist you with your technical problems and to supply data on its varied applications.

SINDAR® Corporation
Industrial Aromatics and Chemicals

321 West 44th Street, New York 36, N. Y.

ly, they're not wasting their time on little punks when there's a nice, big juicy outfit waiting to be knocked off. The bigger they come, the greater the splash, apparently reasons FTC. So if we were a real big outfit whose advertising had become highly scientific of late, we'd get our lawyers together for a conference real quick.

Old FTC could start shooting any day now. Let's hope, they go after a couple of real bad guys first, like a few of the cigarette or food or automobile fellows. That would give us detergent and shampoo and cosmetic outfits a chance to sort of look things over.

* * * * * *

GERMICIDAL . . . You would think that after all the excitement caused by magazine and newspaper articles on "golden staph" about a year ago that *all* hospitals would be doing everything possible to guard against spread of this infection. Not so, dear reader. In public toilets available to visitors in hospitals chances are there will not be germicidal soap. Now while we don't think that the use of a soap containing a bactericide will stop "golden staph" dead in its tracks, we do feel the absence of *any* possible preventive measure is symptomatic of the carelessness probably responsible for the spread of this infection. It is also possible that soap salesmen may be overlooking a chance to help their customers and themselves. Might be worth looking into.

* * * * *

CHISELERS . . . Dilution of well-known, branded products and reselling the sophisticated material as the original is a crooked stunt as old as the hills. It has plagued manufacturers of branded items for years, — and still does. Mostly the practice is confined to the sale of larger packages to the industrial market, although now and then it crops up in the small-package field. Over the years, certain insecticides and disinfectants have been the particular victims of the chiseling dealer. Not only does the manufacturer of the product lose business, but his reputation likewise suffers. The user does not realize that he is being cheated, but believes the quality of the original material is off.

We realize that these crooks buy back empty containers from their customers and reuse them for diluted material. And they also fake package seals where products are and can be effectively sealed. But it is still primarily the manufacturer's problem to keep his pocket from being picked. A package which must be destroyed through use, a seal which cannot be duplicated, — these would be ideal solutions. Maybe they can be found; maybe not. Nevertheless, most manufacturers are careless. They make sophistication too easy. We feel that is the first thing to be corrected.

A recent U. S. Court decision in Boston pinpointed this age-old chiseling. We were happy to see that the crook got what was coming to him.

* * * * *

CORRECTION . . . Last November, Drew Pearson took a crack at Lestoil in his column, "Washington Merry-Go-Round." He said that commercials for the liquid cleaner were misleading and that the Federal Trade Commission was taking action to ban them. Then a few weeks later, a correction was published stating that the commercials in question had been voluntarily withdrawn by the manufacturer in cooperation with the FTC in *February, 1958*. The correction also stated that "independent laboratory tests have proved that Lestoil is not a dangerously flammable material."

But the correction did not appear in Mr. Pearson's column, nor was it signed by anybody. Just a small item at the bottom of the page in one newspaper. If it showed up in others, we didn't see it. Pearson missed the boat by almost two years. He dug up what had long since been a dead body and thought apparently that he had a live one. Maybe that's the reason why he failed to apologize in his column. Maybe he just couldn't afford to do so. It would have made him look rather silly, — or at least the people from whom he gets his alleged inside information. As a newspaper man, surely he has heard of verification. If he hasn't somebody should enlighten him. How anybody can have any faith in all these columnists and the misleading junk which they repeatedly dish out is beyond our understanding.

put POTASSIUM SILICATE in your formulas!

Kasil potassium silicates are effective detergent builders. If you are revising a formula or working on a new compound, these detergent properties of Kasil potassium silicates are of interest.

- **Kasil increases the sudsing of liquid or paste potash soaps**
- **Kasil potassium silicates are good soil suspenders**
- **They prevent the redeposition of removed soil**
- **Kasil also prevents corrosion of iron and tin plate**
- **Kasil added to built liquid synthetic detergents increases solubility**
- **Kasil is compatible with phosphates**

Samples and further information available on your request.

PHILADELPHIA QUARTZ COMPANY
1152 Public Ledger Building, Philadelphia 6, Pa.

PQ SOLUBLE SILICATES
SODIUM SILICATES • POTASSIUM SILICATES

Associates: *Philadelphia Quartz Co. of Calif. Berkeley & Los Angeles, Calif., Tacoma, Wash.; National Silicates Limited, Toronto & Valleyfield, Canada. Distributors in over 65 cities.*

TRADEMARKS REG. U.S. PAT. OFF.

PQ PLANTS: ANDERSON, IND.; BALTIMORE, MD.; BUFFALO, N. Y.; CHESTER, PA.; JEFFERSONVILLE, IND.; KANSAS CITY, KANS.; RAHWAY, N. J.; ST. LOUIS, MO.; UTICA, ILL.

as the reader sees it . . .

"Down's" Test Markets

Editor:

The November issue of *Soap & Chemical Specialties*, as usual, was a splendid one and the cuts of "Dawn" floating deodorant bath and beauty bar on page 124 came out extremely well.

I would like to call to your attention the fact that "Dawn" is not sold in the New York area, as is stated in the caption. The original marketing areas of the product were Phoenix-Tuscon, Ariz.; St. Louis, and Portland, Me. We have not as yet expanded marketing of "Dawn" beyond these areas.

Howard H. Besuden,
Public Relations Department,
Procter & Gamble Co.
Cincinnati

We are grateful to Mr. Besuden for straightening us out on "Dawn's" proving grounds. We still can't figure out how we managed to include New York as a test market. Ed.

—★—

Brighteners Rebuttal

Editor:

We would like to take this opportunity to answer a letter to the editor which appeared under the heading "As the Reader Sees It" in the November issue of *Soap & Chemical Specialties*. In the letter the writer labeled the article "Bleaches and Brighteners" as a "phoney."

It was an inadvertent omission not to have indicated that the photographs were taken with ultraviolet light in order to be able to show photographically the difference in performance of fluorescent brighteners in the presence of chlorine bleaches. The film used in this study was not ultraviolet sensitive film as the letter to the editor indicated. In order to photograph such swatches as were used, one would naturally use film which would be sensitive to visible light rather than ultraviolet light, since it is the visible light produced by the action of ultraviolet light on fluorescent brighteners which accounts for the whitening performance of these brighteners in detergents.

The differences which were shown by this method of photographing are also discernible (to a lesser degree) in a visual observation of these swatches under ordinary daylight conditions or under artificial light which meets the specifications of Standard Illuminant C.

It is well known by those experienced in the art of evaluation of fluorescent brighteners that if the brightener has had an opportunity to deposit on the fabric before a chlorine bleach is introduced into the wash water, the fluorescence will not be damaged to any noticeable degree by the bleach. Also it is known that for most fluorescent brighteners, the simultaneous addition of chlorine bleach and a detergent containing a brightener may result in destruction of a large portion of the brightener with subsequent poorer performance on the fabric.

Articles pointing out this feature of fluorescent brighteners have appeared from time to time in *Soap & Chemical Specialties*.

We wish to point out again that the optical brightener used in "Beads O' Bleach" is stable to hypochlorite with the result that delayed addition of bleach to the washing solution is not necessary in order to secure the maximum degree of brightening from the detergent. A simultaneous addition of this dry bleach permits a full length bleaching period equal to the detergency cycle.

Brett Rich,
Director of Research,
Purex Corp., Ltd.
South Gate, Calif.

—★—

Read That Label!

Editor:

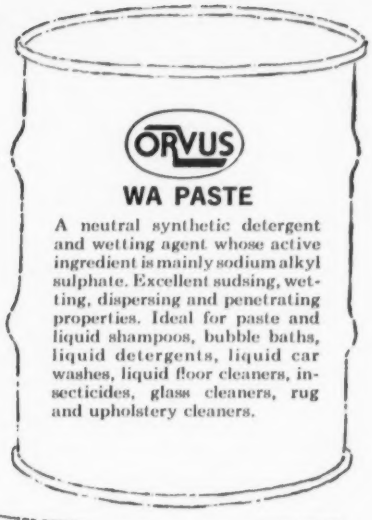
Your comments on page 47 of the December issue of *Soap & Chemical Specialties* on the lady who sprayed a bug with green paint bring to mind a similar incident that occurred this summer at Bishop Gilmore's "Legendary Lodge" in Montana. The father of

(*Turn to Page* 217)

Genevieve, famous French singer and frequent guest on Jack Paar's nightly television show, is so fond of "Bon Ami" cleanser that she uses it to brighten plaster cast on her leg. Genevieve's leg was fractured last summer when she fell on darkened theatre stage. Oh yes, Bon Ami is one of Paar's sponsors.

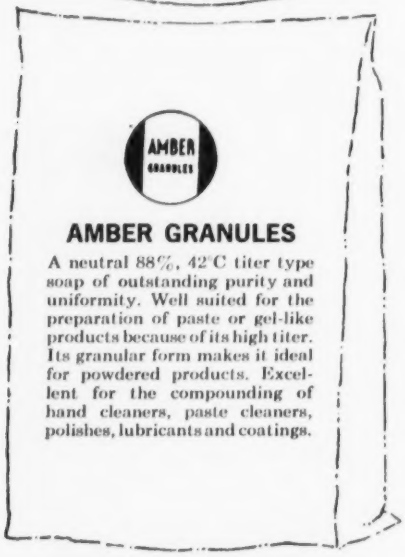
THERE'S A PROCTER & GAMBLE PRODUCT FOR EVERY FORMULATION NEED

A neutral nonionic synthetic detergent of the 100% alkyl-phenol ethylene oxide condensate type. A light-colored liquid with a clean, pleasant odor. Its superior detergent, wetting and emulsifying properties offer excellent performance in liquid detergents, sanitizer detergents, self-emulsifying solvents, laundry detergents, glass, textile and dairy cleaners, insecticides, and bottle washing compounds.



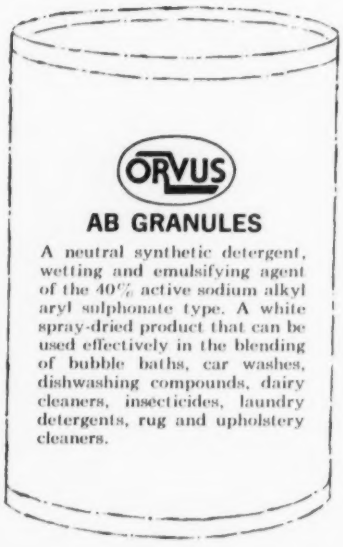
WA PASTE

A neutral synthetic detergent and wetting agent whose active ingredient is mainly sodium alkyl sulphate. Excellent sudsing, wetting, dispersing and penetrating properties. Ideal for paste and liquid shampoos, bubble baths, liquid detergents, liquid car washes, liquid floor cleaners, insecticides, glass cleaners, rug and upholstery cleaners.



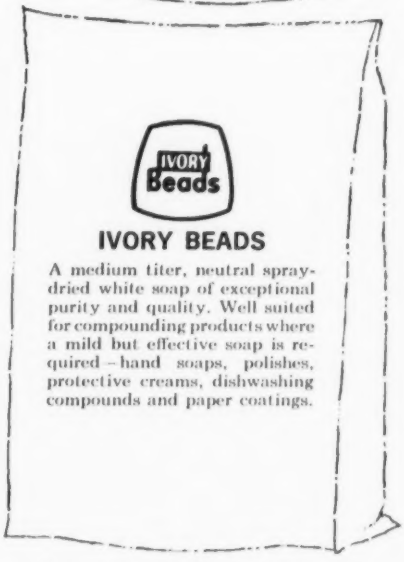
AMBER GRANULES

A neutral 88%, 42°C titer type soap of outstanding purity and uniformity. Well suited for the preparation of paste or gel-like products because of its high titer. Its granular form makes it ideal for powdered products. Excellent for the compounding of hand cleaners, paste cleaners, polishes, lubricants and coatings.



AB GRANULES

A neutral synthetic detergent, wetting and emulsifying agent of the 40% active sodium alkyl aryl sulphonate type. A white spray-dried product that can be used effectively in the blending of bubble baths, car washes, dishwashing compounds, dairy cleaners, insecticides, laundry detergents, rug and upholstery cleaners.



IVORY BEADS

A medium titer, neutral spray-dried white soap of exceptional purity and quality. Well suited for compounding products where a mild but effective soap is required—hand soaps, polishes, protective creams, dishwashing compounds and paper coatings.

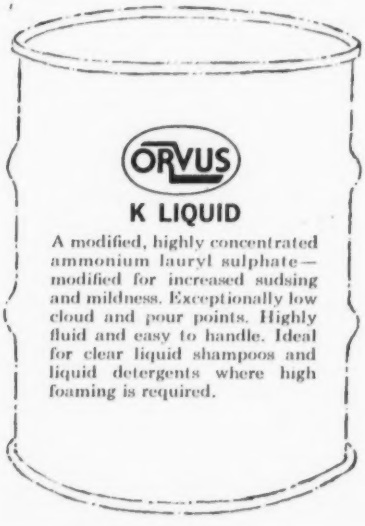
ES PASTE

A specially developed synthetic detergent whose active ingredient is mainly modified sodium alkyl sulfate. Offers exceptional efficiency and stability over a wide range of operating conditions. Its excellent wetting, penetrating, sudsing, dispersing and emulsifying properties make it well suited for the preparation of liquid shampoos, bubble baths, liquid detergents, liquid floor cleaners, insecticides, car washes, emulsion cleaners.

Procter & Gamble will gladly supply you with information on how you can save time and money when you formulate with Procter & Gamble products. You can also get technical help in connection with their use by writing to:

Procter & Gamble

BULK SOAP SALES DEPARTMENT
P. O. BOX 599, CINCINNATI 1, OHIO



K LIQUID

A modified, highly concentrated ammonium lauryl sulphate—modified for increased sudsing and mildness. Exceptionally low cloud and pour points. Highly fluid and easy to handle. Ideal for clear liquid shampoos and liquid detergents where high foaming is required.

Detergents . . . Cleansers . . . Soaps . . .

Aerosols
Detergents
Dishwashing Compounds
Floor scrubs
Glycerine
Hand cleaners
Laundry soaps
Liquid soaps
Metal cleaners
Potash soaps
Scouring cleansers
Shampoos
Shave products
Soap powders
Starch
Steam cleaners
Medicinal soaps
Textile detergents
Toiletries
Toilet soaps
and other detergent
and soap products

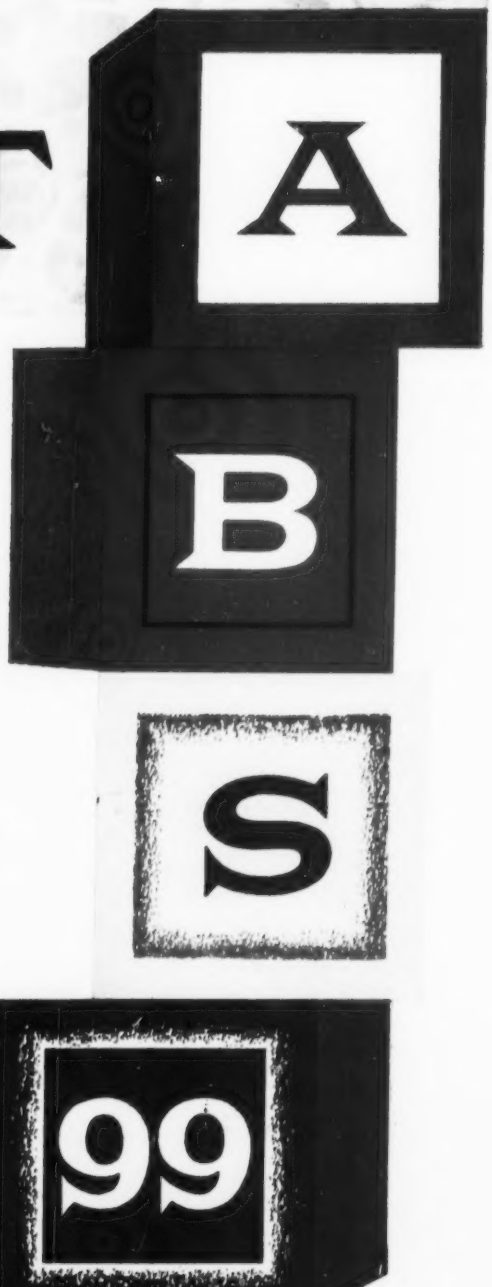
As the 33rd annual meeting of the soap industry gets under way at the Waldorf-Astoria Hotel, New York, Jan. 20, Roy W. Peet is on hand seemingly everywhere to see that things are running smoothly. Secretary-manager of the Association of American Soap & Glycerine Producers, Inc., under whose auspices the meeting is held, Mr. Peet is rounding out 12 years with AASGP. A former vice-president of Colgate-Palmolive Co., he has been in the soap business since back in 1918.

dry
neutralization

emulsion
cleaners

liquid
detergents

PILOT



The building block for all sulfonate detergents . . .

Pilot ABS-99, dodecyl benzene sulfonic concentrate, offers amazing flexibility for your detergent formulation: for direct neutralization of carbonate or bicarbonate mixtures to give dry compounds; can be mixed with a variety of bases and solvents for oil or water dispersable products; will form low sulfate liquids and pastes of light color for all-purpose liquid detergents; will form amine sulfonates which are directly soluble in oil, alcohol and non-aqueous media.

ABS-99 is made by Pilot's unique *Cold Processing* and gives 14% more active ingredient than ordinary 88% pure sulfonic concentrates. Detergent products can be made more efficient and manufactured at a lower processing cost by using highly concentrated Pilot ABS-99.

Because of its high purity, ABS-99 *may be kept in plain steel containers!*

Write now for technical information and sample.

LEADS THE WAY TO BETTER PRODUCTS
PILOT

PILOT *California Co.*

215 WEST 7th STREET • LOS ANGELES 14, CALIFORNIA

Soap Industry Meeting

"Challenges of the 60's" is theme of 33rd annual meeting of Assn. of American Soap & Glycerine Producers, January 20th-22nd.

NINE concurrent round table discussions will turn the spotlight on all basic phases of production and marketing at the 33rd annual soap industry meeting to be held January 20, 21, and 22 at the Waldorf Astoria Hotel, New York. The convention is sponsored by the Association of American Soap and Glycerine Producers, its theme: "Challenges of the 60's in Soap-Synthetics Fatty Acids-Glycerine".

Among the meeting's highlights will be the keynote address by Erwin D. Canham, editor of the *Christian Science Monitor* and president of the United States Chamber of Commerce. Mr. Canham will speak on "Challenges of the Sixties" at the general session set for Thursday morning, Jan. 21.

Ray Scherer, NBC White House correspondent, is featured speaker at the group luncheon on Jan. 21, his subject "Eisenhower—The Personal Diplomat". Mr. Scherer will present his impressions on the President's recent trip abroad.

Marcus Nadler, professor of finance at New York University's School of Business Administration, will preview the "Economic Climate During the Next Decade" in a post luncheon address on Friday, Jan. 22.

Wednesday, Jan. 20, the day preceding the official opening of the convention, will be devoted to meetings of the Fatty Acid and the Glycerine Divisions, who will view their products in relation to the Toilet Goods and Cosmetics Industries and to a session of the Industrial Division. Theme of the Fatty Acid Symposium starting at 10:00 on Wednesday morning, Jan. 20, is "A New Look at Fatty Acids and Derivatives in Toilet Goods". Speakers and their subjects scheduled for this session include: John Hardiman, Kessler Chemical Co., on "Fatty Esters and Derivatives Produced for Toilet Goods — Some New Developments"; Gabriel Barnett, Coty Inc., New York, on "The Scope of Fatty Acids Derivatives in Cosmetic Formulations"; and J. Kenneth Kirk, Assistant to the Commissioner, Food & Drug Administration, U. S. Department of Health, Education and Welfare, Washington, D. C., on "Additive Legislation Affecting Foods and Cosmetics". T. H. McGuine of Wilson Martin Division, Philadelphia, will preside at the symposium. Mr. McGuine is chairman of the Fatty Acid Research and Technical Committee.

The combined Fatty Acid, Glycerine and Industrial Divisions will have their divisional luncheon at 12:30, following the Fatty Acid Symposium. W. O. Robertson, chairman of the Fatty Acid Steering Committee and chairman of

Erwin D. Canham
"Challenges of the Sixties"

Dr. Marcus Nadler
"Economic Climate . . ."

Ray Scherer
"Eisenhower's Trip Abroad"

the board of A. Gross & Co., New York, will preside at the luncheon and present the Fatty Acid Veteran of the Year Award. He will be followed by N. L. Gianakos of Shell Chemical Co., chairman of the Glycerine Research Committee presenting the Glycerine Research Award. The luncheon session will be concluded by Duncan Ridler, Fats and Oils Section, FAO of the United Nations, Rome, Italy, who will present "A World View of the Coconut Oil Supply-Demand Situation."

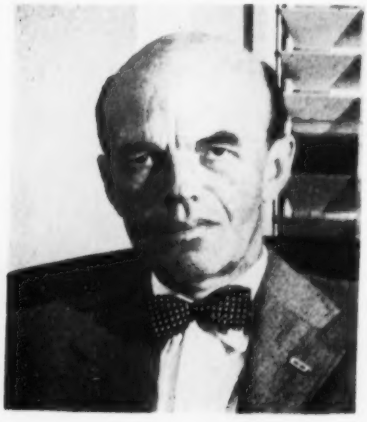
The Glycerine Symposium, scheduled for 2:30 on Wednesday afternoon, Jan. 20, will be presided over by W. W. Bray, chairman of the Glycerine Steering Committee. Mr. Bray is manager of the glycerine sales department of Procter & Gamble Co., Cincinnati. Speakers who will present various aspects of glycerine in toilet goods will include: Steve L. Mayham, executive vice-president of the Toilet Goods Association, on "The Toilet Goods Industry in the 60's"; Paul Lauffer of Northam Warren Corp., Stamford, Conn., on "Glycerine a Versatile Medium in Cosmetic Formulation"; S. J. Strianse, Yardley International Research Laboratories, New York, on "Today's Trends in Toilet Goods Formulations as They Affect the Use of Glycerine and Derivatives"; and Fred H. Snyder, M.D., Procter & Gamble Co., "Glycerine in Cosmetics—Some Relationships to the Biology of the Skin".

Concurrently with the Glycerine Symposium at 2:30 on Wednesday afternoon, Jan. 20, the Industrial Division will meet under the chairmanship of Clarence Weirich of C. B. Dolge Co., Westport, Conn. A division business meeting will be followed by a seminar entitled "Methods of Performance Screening of Industrial Cleaners". The following speakers will participate: J. S. Fassett, American Hotel Association; William H. Joy, building and office supply standards engineer, American Telephone & Telegraph Co.; Albert J. Burner, supervisor of cleaning standards, Port of New York Authority; a representative of the General Services Administration; and George Flint, Rubber Manufacturers Association.

The program of Wednesday, Jan. 20, will conclude with a cocktail party at 5:00 P. M. at which *Soap and Chemical Specialties* will be host.

The convention does not open officially until Thursday morning, Jan. 21, at 9:30 when association president A. K. Forthman presents his address of welcome. Mr. Forthman who is president of the Los Angeles Soap Co. will be first speaker in the General Session scheduled for the morning of the 21st at which Roy W. Peet, association manager will preside. The presidential address will be followed by Mr. Canham's keynote address. The remainder of the General Session will be given over to nine concurrent round table discussions. Those attending the convention are free to join whichever table is discussing the topic of greatest interest to them. Each group will have a discussion leader. The following subjects and leaders are scheduled: "Factory Production — What's Ahead in Processing" with Richard Kozacka, Monsanto Chemical Co., St. Louis, Mo., as leader; "Factory Production — What's Ahead in Finishing" with Leo A. Scott, Colgate Palmolive Co., New York; "Warehousing and Shipping—Mechanization to Speed Order Handling" with Donald D. Derricott, Food Machinery & Chemicals Corp., New York; "New Products and Raw Materials — Avenues of Approach" with Peter B. Baker, Arthur D. Little, Inc., Cambridge, Mass.; "Package Design — Giving the Package 'Sell'" with Walter P. Margulies, Lippincott and Margulies, Inc.; "Marketing Techniques for Industrial Products", Balfour J. Augst, Industrial Soap Division, Armour and Co., Chicago, leader; "Successful Marketing of Household Products", Robert E. Kahl, Borden Foods Co., leader; "Office Automation — Electronics Set New Pace", Robert M. Smith, editor, *Office Management*, leader; and "Product Diversification — Adjusting to Growth" with Samuel L. H. Burk, Rogers, Slade & Hill, as leader.

S. L. Mayham.
"Toilet Goods . . . in Sixties"



Sabbat J. Strianse.
"Trends in . . . Formulations"

Fred H. Snyder, M. D.,
"Glycerine in Cosmetics . . ."

Andrew K. Forthmann
Reports as President

Richard Kozacka
"What's Ahead in Processing?"

Arch Patton
"Care & Feeding of Executives"

Luncheon following the General Session at 12:30 on Jan. 21 will be presided over by Milton C. Mumford, president of Lever Brothers Co. After luncheon Mr. Scherer will give his talk on the President's trip abroad.

The annual "Maid of Cotton" fashion show, scheduled for 1:00 P. M. will conclude the program set for Jan. 21.

The convention breakfast, which is sponsored by *True Story* magazine (7:30 to 9:00 A.M.) will start the final day of the convention, Friday, Jan. 22. A. B. Hersberger, Atlantic Refining Co., Philadelphia, will preside at the General Session opening at 9:30 on Jan. 22. This session will hear the "Report of the Technical Advisory Council", to be presented by J. David Justice, vice-chairman of that council's steering committee. Dr. Justice is assistant research director at Lever Brothers Co. He will be followed by Arch Patton of McKinsey & Co. who will speak on "The Care and Feeding of Executives".

Friday's (Jan. 22) General Session will then hear a report on conclusions reached the previous day by the nine round table discussion groups. Conclusions will be presented by the respective discussion leaders or reporters on the following topics: processing, finishing, office automation, package design, marketing industrial products,

(*Turn to Page* 56)

Ubiquitous Woman

Joyce Cotter Kern

THE ubiquitous young woman of classical beauty who has been a fixture these many years at soap industry conventions is a woman of mystery to many attending these meetings. She is usually seen standing tall and serious at the back of the room, clutching a handful of papers and wearing a pencil in her hair.

A scientist by training, she is a publicist by avocation.

Joyce Cotter, the wife of George Kern, an account executive in radio and television for McCann Erickson advertising agency, received a B.A. degree in chemistry from Connecticut College for Women. Joyce steadfastly refuses to say when — for obvious reasons. She also did graduate work in bacteriology at Columbia University, and for five years was a bacteriologist at Post Graduate Hospital in New York City. This job "paid a pittance", according to Joyce, but carried the title of Assistant Professor of Bacteriology.

From 1942 until 1944 Joyce was a chemist with Vick Chemical Co. And in the latter year she was infected by the writing "bug" when she joined Ames and Norr, public relations firm employed by the Soap Association. Joyce came by her writing bent naturally, since her father was an editor and writer for the Wall Street Journal, and the author of several volumes on finance. Following a five year stint with Ames and Norr, Joyce went with the Soap Association in 1949 on a full-time basis. Among her other duties there, she edited the monthly Fatty Acid Digest.

In 1952 she succumbed to the lure of being a housewife, from which she takes out two months each year to help in publicizing the soap industry meeting.

(*From Page 55*)

marketing household products, product diversification, warehousing and shipping, and new products and raw materials.

At the group luncheon Howard J. Morgens, president of Procter & Gamble Co., will preside. Dr. Nadler will review "The Economic Climate During the Next Decade".

Luncheon will be followed immediately by the annual business meeting of the Association of American Soap & Glycerine Producers. Later the association's board of directors will meet.

In the evening of Friday January 22, there will be a reception and cocktail party by courtesy of the association. This will be followed at 7:30 by the annual banquet at which an entertainment program will be featured.

Additives in Modern Dentifrice Formulas

SURFACE active agents and polishing agents are the two basic ingredients of toothpaste formulations, old or new. Modern dentifrices, annual sales of which run to around $250,000,000, contain a number of additives, each of which serves a distinct purpose, according to a recent issue of the *Givaudan Flavorist*. In an article, "Dentifrices and Their Flavor," which appears in the external house organ of Givaudan Flavors, Inc., New York, the author lists as dentifrice additives: binders or stabilizers; humectants; sweeteners; medical principles; flavoring or aromatic materials.

Calcium carbonate, di- or tricalcium phosphate, calcium sulfate, and a number of other abrasives are used as polishing agents. These constitute the bulk of the dentifrice formulation. Exact proportions depend on viscosity, which is governed by the binders. Polishing agents are worked into a paste with water, glycerine, sorbitol, or any other liquid ingredients.

Main function of surfactants is formation of foam during brushing. Popularity of foam has led to the virtual disappearance of all non-foaming types of dentifrices, according to the *Flavorist*. Sodium lauryl sulfate, sodium, alkyl sulfoacetate, and sodium lauryl sulfoacetate are but a few of the wetting agents commonly incorporated in toothpaste formulations. They are used at the rate of 0.5 to two per cent of the paste base.

Nearly all binders or stabilizers used today are hydrophilic colloids, which thicken or give body to the paste, contribute to suspension of abrasive particles and to viscosity of the product. Gums, such as tragacanth, acacia and karaya, most widely used thickeners, have recently found a rival in Irish moss extractives.

Surface active agents and polishing compounds usually have a bitter, soapy, fatty or harsh taste, requiring the presence of a sweetener. The latter may be saccharine and/or sodium cyclamate in proportions ranging from 0.05 to one per cent.

Glycerine, sorbitol and propylene, either individually or in combinations, may serve as humectants which preserve the correct moisture content, consistency and gloss properties in the finished products.

Medicinal ingredients most popular today include among others: sodium lauryl sarcosinate, an anti-enzyme compound which prevents acid formation in the oral cavity; ammonium salts and urea compounds which inhibit lactic acid formation; fluorides (sodium and stannous) which prevent or reduce caries by combining with tooth enamel and thereby hardening it against acid attack. Sodium oxalate is a novel additive claimed to form a film on the teeth and to build up a hardened wall against acid attack. Several toothpastes on the market today contain "G-11" (trade name of Givaudan-Delawanna, Inc., New York, for hexachlorophene, USP) and claim to give improved protection against decay causing microorganisms and "bad breath."

With the growing complexity of modern dentifrice formulations selection of correct flavors compatible with the ingredients has become more complicated. Peppermint oil or spearmint oil with some menthol added for a freshening effect sufficed in older formulations. Today, mint, spice, and herb type essential oils form the bulk of materials used in dentifrice flavor formulations with judicious addition of aromatic chemicals to give them harmony and balance.

The flavored product must be tested for shelf stability. Discoloration, moisture loss, viscosity and other factors must be evaluated, before a flavor can be termed fully compatible with and suitable for the individual paste. Flavor, acording to the author, is one of the main sales points of dentifrices.

★

Conoco to Build Lab

Plans for the construction of a customer service laboratory in Englewood, N. J., for Continental Oil Co., Houston, Tex., were announced last month by H. P. Solem, general manager of petrochemical sales. The new facility will take on all petrochemical customer service activities formerly handled at the Chestertown, Md., and Ponca City, Okla, research laboratories, except for oil field products work. Currently located at the Englewood property are the company's eastern regional petrochemical sales office, export sales department, accounting and credit departments, and products warehouse and shipping.

J. C. Stanberry, Jr., a research chemist and associate research chemist with Conoco at Ponco City since 1955, will be director of the new laboratory. Harold McDonald, with the company since 1953, has been named research group leader at the laboratory. Conoco supplies intermediates for making detergents.

Protein Based Detergents

By H. L. Sanders* and M. Nassau

Stepan Chemical Co. Chicago — Maywood Chemical Works, Maywood, N. J.

AMONG the numerous types of surface active agents marketed today, there are three unsulfonated amides with somewhat similar structure and uses.

The first type[1], which is by far the largest in volume, consists of fatty acids diethanolamides or monoalkylolamides, and can be represented as

$$RCON\ (C_2H_4OH)_2$$

Employed mainly as foam boosters, viscosity builders and auxiliary detergents in household and industrial cleaners, amides of this type are used to the extent of over thirty million pounds annually.

Making up another class of amide surfactants are fatty acid amides of a simple amino acid called sarcosine. They can be represented by the following structure:

$$RCON\ (CH_3)\ CH_2COONa$$

The chief use for these materials so far has been as foaming and anti-enzyme additives for toothpastes.

A third class of amides[2] forms the subject of the present paper. These are the fatty amides of complex polypeptides derived from proteins. Proteins such as the collagen in leather or the casein in cheese, are complex chains of various amino acids. When some of these insoluble proteins are heated with alkalies the amide links are split, with some evolution of ammonia, and a lower molecular weight, water soluble polypeptide is obtained. This polypeptide might be represented in a highly simplified manner as follows:

$$NH_2CHCO\ (NH\ \underset{R''}{\underset{|}{CH}}\ CO)_x\ \underset{R'''}{\underset{|}{NH\ CHCOOH}}$$

where the various R's represent the different types of groups found in the constituent amino acids. Of course, if the alkali treatment of the protein is carried far enough it will eventually be broken down into a mixture of the individual amino acids. It is believed that both polypeptides and amino acids are present in our protein derived fatty amides.

When these are reacted with fatty acid chlorides, such as lauroyl chloride, under alkaline conditions, any free amine groups present in the polypeptide chain will form fatty amides, so that a lauric "Maypon" structure may be written as:

$$C_{11}H_{23}\ CO\text{-}NH\ \underset{R'}{\underset{|}{CHCO}}\ (NHCHCO)_x\ \underset{R'''}{\underset{|}{NHCH\ COO\ Me}}$$

where Me can be any cation such as sodium, potassium, triethanolamine etc. Obviously, these compounds are anionic surfactants somewhat related to soap in having a terminal carboxyl group.

In practice, the most commonly used source of protein is scrap leather, and the fatty acids are usually coconut or oleic. The resultant amides are amber colored, syrupy liquids containing about 35-40 per cent of the surfactant in water.

Table I lists some of the standard properties of the "Maypons" currently on the market:

Although this group of amides has been on the market for the past 20 years, their interesting properties have not been fully realized. They are potentially useful in a wide variety of specialties.

Alkaline Cleaners

The "Maypons" are soluble in unusually high concentrations of many salts, particularly alkali types. Table 2 lists some of the values obtained.

Although the entire series forms almost clear solutions in ordinary hard waters, it is precipi-

Table I.

Type	Fatty Acid	Cation	Form	Color	% Activity	pH	(°F) Cong. Pt.	Spec. Grav.
4C	Coco	Potassium	Liquid	Amber	35	6.5	29	1.08
4CT	"	Triethanolamine	Liquid	Amber	35	6.8	25	1.06
DP	"	Potassium	Liquid	Amber	40	8.5	10	1.19
SK	"	Sodium	Liquid	Amber	35	9.0	10	1.16
K	Oleic	Sodium	Liquid	Amber	40	9.0	30	1.17
K903	"	Sodium	Liquid	Amber	42	9.0	30	1.17

[1] "Ninol," trade mark of Stepan Chemical Co.

[2] "Maypon," trade mark of Maywood Chemical Works.

*Paper presented at 46th annual meeting, Chemical Specialties Manufacturers Association, Washington, D. C., Dec. 8, 1959.

tated out by more concentrated solutions of calcium or magnesium salts.

Solubility of these compounds in highly concentrated phosphate solutions immediately suggests their use in alkaline liquid cleaners such as steam cleaners, wax strippers and other heavy duty cleaners. For example, a product of the following composition can be formulated quite economically:

	per cent
"Maypon SK"	15
Tetrapotassium pyrophosphate	25
Sodium metasilicate	5
Water	55

This can be used for white wall tire cleaning, wax stripping, etc. Or a so called "scum remover" can be made up, consisting of a strong solution of a sequestering agent containing a wetter. This is used for removing lime soap film from terrazzo floors, and can be formulated as follows:

	per cent
"Maypon 4C"	1
"Versene 100" (Dow)	30
Water	69

The chemical stability of these protein condensates in alkaline solution is excellent if the pH is not pushed too high. Preliminary investigations indicate that the "Maypons" are stable for long periods at a pH of up to 12 but may begin to show some saponification at a higher pH. For example, "Maypon 4" will dissolve readily in 15 per cent sodium hydroxide, but after a few weeks of storage at 120°F, turbidity appears.

Incidentally, none of these condensates is soluble in acids and will precipitate out of solution below pH 5 in the form of their free acids. This is reversible, and the white precipitate will redissolve on addition of alkali.

Laundering Detergents

In Europe these products were widely used as textile scouring agents and are employed by some mills in this country for removing grease from synthetics and woolens. The excellent scouring action of protein condensates was demonstrated by Barnett and Powers (Proc. Sci. Sec. Toilet Goods Assoc. May, 1954) who measured the amount of grease removed from wool by 0.25 per cent surfactant solutions. Protein condensates are also said to protect fibers from the chemical action of alkalies used in the scour.

Table II. Salt Concentrations Tolerated

	"Maypon"		
Salt	4C	SK	K903
Tetrapotassium pyrophosphate	30	30	20
Sodium metasilicate	40	40	20
Sodium chloride	15	20	5
Sodium sulfate	15	25	10

A larger market, however, is offered by household laundry compounds where washing of soiled cottons is the prime purpose. Here the protein condensates are not effective enough by themselves, but by blending with phosphates and amides high detergency can be obtained. This is illustrated in Table 3, where the effects of building are seen, using two different types of soiled cotton in a "Terg-O-Tometer."

Table III. Effect of Builders on Detergency

	Increase in Reflectance Readings	
Detergent	CSTC Cloth	ACH Cloth
Water	1	5
"Maypon 4C" (0.5% active)	5	6
"Maypon 4C" (0.5% active) Potassium pyrophosphate (0.1%)	12	19
"Maypon 4C" (0.04%) "Ninol AA62" (Stepan) (.01%) Potassium Pyrophosphate (0.1%)	19	22

As a consequence of these findings a heavy duty liquid laundry detergent for household use was formulated as follows:

	per cent
"Maypon SK"	20
"Stepan DT-20"	25
"Amidox C2"	2
Tetrapotassium pyrophosphate	20
Sodium metasilicate	5
Water	33

If desired, the inorganics can be increased to the 35 per cent level by using only sodium metasilicate, in which the protein condensates are more soluble. Storage stability at this high pH has not been studied however. Addition of carboxymethyl cellulose for increased soil suspension is suggested.

Shampoos

Protein condensates are especially well suited for use as shampoo components because of their mildness and absence of eye irritation. Being based on proteins similar to those found in skin, hair and eyes it is, perhaps, not surprising that these surfactants are non-irritating to human tissue, and exhibit desirable physiological properties.

For example irritation tests run on rabbit eyes by the Draize-Woodward method gave a score of zero for full strength "Maypon 4C." Skin irritation tests on guinea pigs showed a complete absence of sensitization; tests run on human ears by a firm using "Maypon K" in an ear medication, showed no reactions. Oral toxicity tests were carried out on rats, and an LD50 of 35 grams per kilogram was found for "Maypon 4C;" this is a very low order of toxicity, in the range of soap.

"Maypon 4C" or the triethanolamine salt "4CT" are recommended for use in cosmetic products since they are purified for lighter color and easy perfuming. By themselves, these condensates do not produce quite as much foam as the widely used lauryl sulfates. However, blending with foam boosting amides greatly enhances the foam volume as seen in Table 4.

Table IV. Foaming Properties

Detergent (0.05% active)	Ross-Miles Foam (mm)
Sod. Lauryl sulfate	177
"Maypon 4C"	138
"Maypon 4CT"	140
"Maypon K903"	108
2 "Maypon 4C": 1 fatty acid alkanolamide ("Ninol AA62 Extra")	175

Addition of the alkanolamide also increases the viscosity of the formulation, approximately one part of alkanolamide being required for one part active protein condensate "4C" in order to obtain appreciable body. This can be seen from the data in Table 5, where total activity is maintained at 15 per cent while the proportion of "Ninol AA62" Extra brand of alkanolamide is increased:

Table V. Effect of "Ninol" on Viscosity

% Ninol AA62 Extra	Viscosity of Maypon Blend 4C	4CT	K903
0	3	3	9
1	3	4	128
2	3	4	3600
3	8	4	10,100
4	10	5	1900
5	12	5	440
6	50	14	
7	72	108	
8	1500	1000	
9	1000	1300	
10	465	600	

A simple formulation for a clear shampoo with good lather and attractive viscosity can be made up as follows:

	per cent
"Maypon 4C"	30
"Ninol AA62" Extra	7
Water, perfume, etc.	Balance

By adjusting the pH to about 7 with an acid such as citric, considerably higher viscosity can be obtained. It is also advisable to add about 0.1 per cent of formaldehyde or other preservative to avoid bacterial attack.

In addition to being non-sensitizing by themselves, protein condensates seem to protect the eye from other more irritating shampoo ingredients. For example, a 12 per cent active solution of sodium lauryl sulfate alone caused definite eye irritation in rabbits, whereas a blend of 12 per cent sodium lauryl sulfate plus five per cent (active) "Maypon 4C" was found to be non-irritating. In view of the constant problem of formulating shampoos which form good lather and pass the Draize test, this is an important observation.

This protective action of the protein condensates makes them valuable as additives to the conventional lauryl sulfate shampoos where they contribute foaming and cleaning action as well as protection against irritation.

It has repeatedly been claimed in the German literature that protein condensates are substantive to hair, and have a protective and conditioning effect. In this country they are being used as additives to cold wave thioglycolate solutions to mitigate damage to hair fibers. In a paper published in the July 1959 issue of *Journal of the Soc. of Cos. Chemists* the adsorption of amino acids onto hair was studied. By a C14 labelling technique, it was shown definitely that protein derived compounds are actually plated out of shampoos onto the hair. This would seem to confirm the possibility that the "Maypons" also are adsorbed and exert a conditioning effect.

This conditioning action of proteins is currently being utilized in a number of cosmetic shampoos on the market which contain polypeptides. Maywood Chemical Works markets a product called "polypeptide No. 37" which is a 50 per cent solution of the straight sodium polypeptide (not reacted with fatty acids). Addition of about 15-20 per cent of such a solution to conventional shampoos definitely leaves the hair more manageable.

Rug Shampoos

A different type of shampoo is used in rather large volume for cleaning rugs and upholstery. In this field sodium lauryl sulfate has been most widely used because of its combination of good lathering and rather slow wetting action which helps to decrease penetration and wetting of the underlying padding material. The "Maypons" are even slower wetting agents, as shown in Table 6, where 0.1 per cent active surfactant was used and the sinking time of a cotton skein measured by the Draves method.

Table VII. Dishwashing Performance

Detergent	Plates washed
Sodium Dodecyl benzene sulfonate	6
"Maypon 4C"	7
"Maypon 4CT"	6
"Maypon K903"	4
2 "Maypon 4C": 1 fatty acid alkalolamide	9
2 Dodecyl benzene sulfonate: 1 fatty acid alkanolamide	11
1 "Maypon 4C": 1 Dodecyl benzene sulfonate: 1 alkanolamide	10

Table VI. Wetting Speeds

Product	Sinking Time (sec)
Sod. lauryl sulfate	25
"Maypon 4C"	46
"Maypon 4CT"	69
"Maypon K903"	94

Using a simulated carpet cleaning test in which a brush is used to generate lather on a rough surface, "Maypon 4C" or "SK" appeared to develop satisfactory volumes of stable foam with slow penetrating action. Rug and upholstery shampoos might be based on a formulation of the following type:

	per cent
"Maypon SK" or "K903"	40
Lauric isopropanolamide	5
Isopropyl Alcohol	5
Water	50

In this combination lauric isopropanolamide acts as additional foam builder.

Dishwashing Compounds

Tests were run on the dishwashing performance of several protein condensates by washing soiled dishes to the foam end point in a dishpan. In all cases 0.05 per cent active surfactant was used at 45°C. The results are shown in Table 7.

It would appear that the "Maypons" do not give quite as

(*Turn to Page* 122)

New Hair Shampoos Cut Eye Irritation

NEW developments in shampoo formulation designed to minimize the possibility of eye irritation were described in the October issue of *Schimmel Briefs* of Schimmel & Co., 601 West 26th Street, New York 1. The detoxifying action of polyvinylpyrrolidone, demonstrated in other fields has been applied to a shampoo formulation containing a bacteriostat. The product *per se* was shown to cause severe eye irritation in rabbits followed by infection in two out of three test animals. With an addition of 0.5 per cent PVP the same shampoo caused no more than a mild irritation which cleared up within three days.

The subject of eye irritation by shampoos was reported in consumer complaints relating to a combined cold wave neutralizer/detergent shampoo, according to *Schimmel Briefs*. Neutralizers alone are only mild temporary irritants. However, mixtures of the oxidizing agents with a surfactant, especially a cationic, might produce irritation, The product which gave rise to the complaints has been withdrawn by the manufacturer.

The problem of eye irritation by shampoos first became acute in 1951 and 1952 when FDA investigated consumer complaints charging that certain shampoos designed to control dandruff had such an effect. Well founded, the complaints related to products based on a nonionic detergent, in most cases an alkyl phenol ethylene oxide, and containing a quaternary as a germicide. In at least two of the shampoos the quaternary was lauryl isoquinolinium bromide.

Cationic surfactants generally are more irritating to the eyes than anionics or nonionics, *Schimmel Briefs* states. The Draize-Kelley tests are cited for the maximum concentration of various surfactants tolerated by the tissues of the eye. These authors considered a solution was tolerated if the treated eye returned to normal within seven days, even though some irritation may have been produced. Tolerances for several cationic surfactants are given below.

Among anionics tested by these investigators, sodium lauryl sulfate generally was tolerated at concentrations of up to 20 per cent, whereas "Nacconol NRSF" (National Aniline Division) an alkyl aryl sulfonate was tolerated only up to five per cent. Most of the nonionics were found to be mild in their action on the eye. However, "Triton X-100" (Rohm & Haas Co.), an alkyl aryl polyglycol ether was found an irritant at concentrations above five per cent.

Maximum tolerated concentrations for cationics as listed above do not apply to these products in a shampoo formulation. They were determined on a simple water solution. Safe concentration of these germicidal agents in shampoo bases would be much lower, the writer points out. They would have to be determined for each individual detergent base. Some of the fatty acid alkanolamine condensates are quite mild in their effect on the eyes and might be used in formulating shampoos with a cationic ingredient, according to this report.

	Maximum tolerated percentage of active ingredient
"BTC" (Onyx Oil & Chemical Co.) lauryl dimethyl benzyl ammonium chloride	0.5
"Hyamine 1622" (Rohm & Haas Co.) p-diisobutyl phenoxyethoxyethyl dimethyl benzyl ammonium chloride	0.5
"Roccal" (Sterwin Chemicals, Inc.) alkyl dimethyl benzyl ammonium chloride	0.5
"Isothan Q-15" (Onyx) lauryl isoquinolinium bromide	0.8
Ethyl Cetab, cetyl ethyl dimethyl ammonium bromide	1.0
"Triton G-400" (Rohm & Haas) stearyl dimethyl benzyl ammonium chloride	1.0

★

Improves Toilet Soap

A new improved version of "White King" granulated soap has been developed by Los Angeles Soap Co., Los Angeles, Calif. The product now combines the most desirable properties of both synthetic detergents and soap, according to Martin C. Spiegel, director of sales.

A new dispersant is incorporated in the soap which minimizes precipitation of lime soap. David C. Porter, assistant technical director of the firm said: "A large number of dispersants were investigated before locating a combination which operated synergistically to provide adequate dispersion at the necessary low cost. This particular combination, which we do not feel free to divulge at this time, permits free rinsing of the clothing and minimizes visible lime soap particles retained on the walls and agitator of washing machines."

According to Mr. Porter "Reduction or elimination of lime soap scums in washing machines removes one of the most serious objections to the use of soap by housewives and may well be responsible for reversing an otherwise declining market for laundry soap."

Los Angeles Soap is promoting its improved product on the West Coast by newspaper advertising, points of sale promotion, and radio advertising.

★

New Allied Group

The formation of a new technical service group, directed by J. E. Loughlin, manager, was announced last month by National Aniline Division, Allied Chemical Corp., New York. With headquarters in Buffalo, N. Y., the new unit will gradually broaden its scope of operations to offer technical service in connection with all chemical and dyestuff products marketed by the division.

Aerosol Perfuming

By Victor DiGiacomo*
Givaudan-Delawanna, Inc.
New York

AEROSOLS' spectacular growth in the past decade resulted from the combined efforts of many industries. Our company was among the firms investing much research effort in the solution of problems pertaining to perfuming of aerosol packaged specialties. When the consuming public accorded the first pressure packaged insecticides and mothicides an enthusiastic welcome, far sighted manufacturers in many fields recognized the great future possibilities of the new packaging medium. However, many difficulties had to be overcome before the pressure package could be used to market deodorants, shaving creams, and many other products which are now successfully presented to the consumer in this form.

Solution of these problems required more than the established knowledge and experience gained by chemists and perfumers in the cosmetic and other specialties industries. New and specialized knowledge and experience were needed to answer questions peculiar to the aerosol. These include among others corrosion of metal parts, valve clogging, leakage, emulsion stability within the container, odor changes due to incompatibilities, etc. Each of these questions has to be answered individually for each new aerosol formulation. And the most important problem facing the aerosol formulator arises from the propellant, the product compatibility of which must be established in each instance.

Perfuming Problems

Very early in our studies it became obvious that each pressurized formulation created individual perfuming problems. Therefore each product required accelerated shelf testing before it could be considered ready for the consumer market. No great difficulty is encountered in creating a perfume blend. But it is necessary to know in each instance the effect of the blend on aerosol containers or their components; on the other ingredients of the basic formulation; and on the very small orifice through which the product must pass. Conversely one must know the effect of all these aerosol components upon the perfume material.

In addition to compatibilities, the pressure at which the container is packaged was found to cause changes in the odor characteristics of the perfume blend. High pressures permit more complete dissemination of the heavier odor components of the fragrance composition thus exerting a deleterious effect not only on the top note but on the total olfactory character of the blend.

Research and testing procedures applied in the past ten years have taught us how individual chemicals and perfume blends will be affected by contact with the various aerosol components and basic formulation ingredients. We have also learned how to adapt our formulations to the compatibility requirements of the various containers, metallic and non-metallic and of the propellants and propellant mixtures in general use.

Development and application of epoxy and other resinous coatings for use in aerosol cans did much to aid in the diversification of the aerosol package. With these new coating materials, it became possible to package prod-

*Paper presented at the second annual meeting, Canadian Manufacturers of Chemical Specialties Association, Toronto, Nov. 3.

ucts which previously reacted with the container wall if contact was made with the metal. These resins made possible the pressure packaging of certain detergent materials and opened the door to applications of the aerosol in the food industry where wide use of this packaging medium is possible and expected. These newer coating materials also opened up a wide potential for the aerosol in the pharmaceutical industry, where the application of the pressure package is now developing rather rapidly. In this field the aerosol offers several advantages over other packages, including longer and more sterile shelf life, less contamination in use and easier application.

Research brought about the use of nitrous oxide, carbon dioxide, nitrogen and other such gases as propellants. While some of these compressed gases are inert, others are reactive and their use with certain products proved to be detrimental. The fact that these newer propellants are comparatively less expensive stimulated research which made their application to aerosol packaging a reality.

The valve mechanism, an important part of the aerosol container, also went through several stages of development. We have reached a point where there are different valves for different types of products. The metered valve has made aerosol use by the consumer easier and much more convenient. These new metered valves have also made possible a more economical package, since most consumers tend to use more of a given pressurized product than is actually necessary.

Some of the recent developments outlined above aided the perfumer by allowing him greater flexibility in the perfume materials that can be utilized in aerosol fragrances. In addition, the newer valves and glass containers, particularly of the purse flacon size, have led to the adoption of the aerosol by the classical perfume organizations.

We have long advocated careful selection of perfume materials intended for aerosols, in view of the problems of hydrolysis, insolubility, coloration, discoloration, and metallic contamination. As a result of the newer procesing techniques, we can now use aromatic materials which heretofore were banned for one reason or another. Up to very recently, it was impossible to use in aerosols certain fragrance products containing resinous and herbaceous ingredients which were insoluble. Today, research has made available molecularly distilled products which may be incorporated into aerosol formulations without fear of experiencing solubility difficulties.

In working with the more recently developed aerosol containers, we have found that certain metals react unfavorably with the ingredients of a perfume blend. In most of these cases, our research has indicated that one of the several internal coatings now available will prevent such a condition. We have obtained excellent results with stainless steel containers for perfume application, but based on our experiences, would recommend that aluminum containers be carefully coated to prevent perfume deterioration.

The most recent developments in aerosol packaging have been the use of synthetic resin containers made of such materials as nylon, "Zytel" (du Pont) and others. We have found that nylon is not an ideal medium for the dispensing of fragrance products. It is, however, suitable for various cosmetic preparations.

Product Formulation

Many aerosol formulators may not realize that the procedure for preparing aerosol perfumes and colognes is basically the same as that used for the conventionally packaged products. Alcoholic perfume and cologne solutions are always allowed to stand for a specific period of time prior to chilling, filtering, and packaging in non-aerosol containers. This permits precipitation or settling of any resins, waxes and other insoluble materials, which may be part of the natural ingredients used. This procedure assures that the solution will remain clear, with no evidence of insolubilities, throughout its shelf-life and period of use. In the case of aerosol cans or coated bottles, which are opaque we have found that this procedure has not always been followed. Actually the solubility in aerosols is more critical than in conventional packages. The carrier in which the pressure packaged perfume oil is dissolved consists of alcohol and propellants having a lower solubility factor than the straight alcoholic solution used in conventional glass-packaged products. This may accelerate the rate of precipitation of the basic components which may in turn affect the valve mechanism and cause an inoperative container. The proper chilling and filtering of alcoholic solutions is, therefore, far more important in aerosols than in conventional packaging. We recommend the following procedure when preparing a perfume or cologne solution for aerosol application.

Phase I.—Preparation of an alcoholic cologne solution

A. Incorporate desired ratio of oil in alcohol
(95% SDA recommended for all propellants except those subject to hydrolization such as #11—Trichloromonofluoromethane)

B. Allow alcoholic solution to age at least 48 hours.

C. Chill solution for at least five hours at minus 5°C — minus 10°C.

D. While at these low temperatures, filter several times through magnesium carbonate or other suitable filtering medium.

Phase II.—Preparation of finished product

Recommended formula for aerosol cologne mist for use in coated glass containers:

4.0	Perfume Oil	
46.0	SDA 40	
50.0	Propellants	(114-85%)
100.0		(12-15%)

In order to prepare the above solution, it is recommended

that an 8 per cent concentration of perfume oil be prepared in the alcohol solution and treated as recommended above. To prepare the finished aerosol cologne mist, 50 per cent of the 8 per cent alcoholic solution and 50 per cent of the propellant mixture would be used.

Metered perfume spray for use in metal containers

60.0	Perfume solution, 20% perfume in SDA alcohol
40.0	Propellants (114-60%)
100.0	(12-40%)

The alcoholic solution given in the above formula should be treated as recommended above and charged into a metered aerosol container. Since this product contains a high concentration of perfume oil, metered valves are suggested to guard against any possible difficulties due to the particle size of the spray. It is necessary to use a higher pressure in this system to obtain proper spray characteristics. We should also mention that in view of the vast difference in specific gravities of the alcohol and the propellants used, all concentrations in these formulations are based on weight.

We have thus far pointed out how necessary it is to carefully prepare perfume solutions for aerosol application to insure the proper functioning of the pressure container. We now want to emphasize that the same care should be applied to the scenting of other aerosol products. They must be studied to determine the best method for incorporating the perfume oil, and the oil itself must be selected or custom-made especially for the product in which it is to be used.

Basic formulations of finished products are modified for pressure packaging. While we can mostly incorporate a perfume oil into a base to be conventionally packaged, it sometimes becomes necessary to suspend an oil in an aerosol product to prevent separation of the perfume compound. For aerosol insecticides and similar products, it may be necessary to use a high concentration of a co-solvent with the perfume oil in order to solubilize it in the hydrocarbon base of the principle. It is therefore essential that the individual product be evaluated to determine how the perfume oil is to be formulated and incorporated for best results.

Aerosol Testing

To successfully recommend fragrances and product formulations for aerosol applications one must maintain a testing program to insure not only the initial performance of the perfume product but its continued performance over a long period of shelf life. Whether the ingredients chosen for an aerosol product are essential oils, aromatic chemicals, isolates, etc. or cosmetic components such as waxes, lanolin and its derivatives, or other raw materials, their suitability for this application must be determined prior to their selection for a specific formulation. Even after a case history has been developed on each of these component materials by both accelerated and long shelf testing procedures they must be formulated into their respective cosmetic bases or perfume compounds and then tested again as a complete aerosol formulation using the same test methods. We have learned that many of the materials which have been proven suitable for aerosol use individually react quite differently when incorporated into a blend or formulated into a cosmetic base. One thing must be emphasized, and that is uniformity of test methods. The methodology must be determined prior to the beginning of the tests and the procedure must be maintained throughout the test evaluation period.

Our company's aerosol testing program is a continuous one and includes both accelerated and long shelf tests. Various types of aerosol formulations are prepared and packaged in the type of container used for commercial application. The product is shelf tested for a period of one year and undergoes accelerated testing at the initial stages of evaluation. Each month during the test period, and during and after the accelerated procedure, the products under test are evaluated for odor quality, stability, corrosion, perfume performance and other qualities. Comparisons are made with control samples throughout the test periods. In this way old and new materials are constantly being evaluated and re-evaluated in various aerosol media.

Future Developments

What about the future of the pressurized package? One of the imminent advances in the field involves standardization. Aerosol containers, coatings, valves and other component parts are currently undergoing standardization. Producers will not be confronted any more with the multitude of different components now on the market. Within the next few years when standardization is accomplished, we will have better consumer products and the cost of production should be reduced considerably.

A system of aerosol standardization will help both the perfumer and the cosmetic chemists as they will no longer be faced with the many variables that exist today. It will give them greater flexibility in cosmetic and perfume formulations and allow them even more freedom of ingredient choice than they have today. With a smaller number of standardized components to choose from, they will be able to prepare complete research histories on each and will be able to choose the component that will be best suited for the product being developed.

The future will bring other new developments in pressure packaging. We can safely predict a tremendous market for this packaging medium in foods and pharmaceuticals where its use will far surpass that of cosmetics and toiletries.

In addition, almost every conceivable type of toiletry will

eventually appear in pressurized form. Face powders, lipsticks, hair tints and dyes, and hair waving preparations will all be aerosol packaged. Aerosol sanitizing and degerming specialties containing highly effective bactericidal ingredients will become as familiar to the housewife as the hair spray is today. And the use of these items will not be limited to the home. They will also be used in hospitals, in schools and for industrial applications. We could mention many more products which we believe will be aeosol packaged. One thing is certain: The aerosol can be expected to play a much bigger role in packaging during the years to come and fragrance will have a major part in its further expansion.

—★—

Piatt & Smillie Moves

Piatt & Smillie Chemicals, Inc., makers of "First" Floor Cleaner, recently consolidated its operations into a new factory at 3419 Gratiot St., St. Louis 3, Mo. Through the move the firm was reported to have doubled usable space as well as obtaining a fenced open storage area and a railroad siding. According to David L. Smillie, executive vice-president, the research and development plant in San Carlos, Calif., also will undergo an expansion.

—★—

McConnon & Co. Acquired

A majority interest in McConnon & Co., Winona, Minn., manufacturing chemists, was sold recently to five businessmen in that city, who served as the company's board of directors since a management reorganization in 1956. Started in 1899, McConnon & Co. was owned by the James and H. G. McConnon families. The five new owners are: B. A. Miller; E. H. Finkelburg; J. H. Baker; F. O. Gorman; and George E. Kelley. Richard G. Vickery, formerly vice-president of Knight & Bostwick, Newark, N. Y., has been named vice-president and general manager of McConnon & Co.

TGA Hears of New Hair Spray Formula

AN aerosol hair spray formulation based on panthenol was suggested by a speaker at the 27th midyear meeting of the Scientific Section of the Toilet Goods Assn. held Dec. 1 at the Waldorf-Astoria Hotel, New York. Seven papers were presented during the all-day meeting.

The aerosol hair spray formulation was contained in a paper, "Panthenol in Cosmetics," by S. H. Rubin, L. Magid and J. Scheiner of Hoffman-La Roche, Inc., Nutley, N. J. Panthenol is described as the alcohol analog of pantothenic acid, a vitamin of the B-complex group essential for growth and normal maintenance of skin and hair.

The authors claim that panthenol is a "desirable" addition to hair sprays and lotions for the following reasons: Pantothenic acid is a normal constituent of healthy hair; topically applied panthenol increases pantothenic acid content of hair; and panthenol adds luster to the hair and is an excellent grooming agent which does not contribute oiliness or objectionable stickiness. A suggested panthenol aerosol hair spray is composed of the following:

A	per cent
d or dl-panthenol	1.0
"Lanogel 21" (Robinson-Wagner Co.)	0.5
"Zelek NK" antistatic (E. I. Du Pont)	0.1
Perfume	q.s.
Alcohol SDA #40	28.4
B	
"Freon" (du Pont) propellants 11/12 (60/40)	70.0

Procedure: Mix A, chill overnight at 4°C. and filter clear. Add B by cold process and fill into aerosol cans.

Additions of panthenol are suggested also for a number of skin lotions, creams, lipsticks, anti-perspirants, etc.

Two papers were presented on the application of modern instrumentation to fragrance evaluation: James A. Rogers, Jr. of Fritzsche Brothers, Inc., New York, spoke on "Instrumental Evaluation of Citronella Oils and Palmarosa Oil — Geraniol, Citronellol and Other constituents." "Recent Advances in Instrumental Examination of Fragrance Materials" were described by Ernst T. Theimer, van Ameringen-Haebler Division of International Flavors and Fragrances, Inc., New York.

Other subjects included: "The Synthesis and Properties of Mercaptans Having Different Degrees of Acidity of the Sulfhydryl Group," by J. W. Haefele and R. W. Broge, Procter & Gamble Co., Cincinnati; "The Objective Measurement of Odor III.—Breath Odor and Deodorization," by Donald A. M. Mackay and Murray Berdick of Evans Research & Development Corp. and David A. Lang of American Chicle Co.; "Protection of Hydrogen Peroxide Bleached Hair with Acid Solutions," by Peter Flesch, M.D., department of dermatology, University of Pennsylvania Medical School, Philadelphia; and "Methionine in Cosmetics and Pharmaceuticals," by H. J. Prebluda, U. S. Industrial Chemicals Co. and Irwin I. Lubowe, New York Medical College.

—★—

Larrick Defends Seizures

George P. Larrick, commissioner of the Food and Drug Administration, speaking before the food and vegetable conference at the American Farm Bureau Federation's 41st annual convention in Chicago recently, stated that the cranberry poison situation was "out of control" when the government took action. He defended FDA's seizure policies as the best possible course of action under present conditions and cited DDT among the insecticides which might be improperly applied, noting that its use on spinach had at times led to seizure.

Cosmetic Chemists Honor Gump

William S. Gump of Givaudan Receives 1959 Medal award of Society of Cosmetic Chemists for work which led to the development of hexachlorophene

SOPHIE L. Plechner of Carter Products, Inc., was chosen president-elect to head the Society of Cosmetic Chemists in 1961 at the group's 15th annual meeting, Dec. 2, at the Commodore Hotel, New York. Dr. Plechner is the first woman to be elected to the office. Herman J. Amsterdam of International Flavors & Fragrances, Inc., will be president of the society in 1960, succeeding Savery F. Coneybear of Colgate-Palmolive Co. Mr. Coneybear will serve as chairman of the executive committee.

With Carter since 1943, Dr. Plechner holds the position of senior pharmaceutical research chemist. Prior to joining Carter she had been with Bristol Myers Co. for two years. Dr. Plechner graduated with a B.S. degree from Douglass College, with an M.A. and Ph.D. from Columbia University.

The 1959 special medal was presented to William S. Gump of Givaudan Corp. at the society's annual dinner dance. The award was given to Dr. Gump in recognition of his outstanding contributions to the art and science of cosmetics which include the development of hexachlorophene.

Two newly elected directors of the society are Theodore J. Ostrowski of Germain Monteil, Inc., and Martin Rieger of Lambert-Hudnut Manufacturing Laboratories, Inc., Morris Plains, N.J.

Re-elected as treasurer of the society was Lester I. Conrad, executive vice-president and technical director of American Cholesterol Products, Inc., Edison, N.J. Robert A. Kramer, vice-president of Evans Research and Development Corp., was re-elected secretary, an office he has held since 1951.

At the dinner, R. E. Horsey, vice-president in charge of sales at Givaudan-Delawanna, Inc., acted as eulogist for the medalist and outlined briefly Dr. Gump's career in Germany and in the United States. Son of a lawyer, Dr. Gump broke with a family tradition and studied chemistry, first in Tuebingen and later in Munich, where he graduated with a Ph.D. in 1923. He came to this country in 1927 and took a position with Monsanto Chemical Co. In 1929 he returned to Germany, where he stayed two years. He finally settled in the United States in 1931, where he first joined the Trudeau Foundation. He came to Givaudan in 1937, where he soon began work on bacteriostatic agents which culminated in the discovery of hexachlorophene.

Dr. Gump responded to Mr. Horsey's address by a short summary of the work which led to the first bisphenols and finally to "G-11".

The role, actual and potential, of polyvinyl acetate copolymer

Dr. William S. Gump, (left) of Givaudan-Delawanna, 1959 medal award winner of Society of Cosmetic Chemists, responds to eulogy for medalist given by Robert E. Horsey, (right), vice-president in charge of sales for Givaudan. In center photo Dr. Gump receives plaque from Society president, S. F. Coneybear of Colgate-Palmolive Company, New York.

as a film former in hair sprays, was one of the subjects discussed during the all-day technical program which consisted of seven papers. Paul Weitz of National Starch and Chemical Corp. spoke on polyvinyl acetate copolymer which is soluble in water, soap and solvents. Designated "Resyn 28-1310", the copolymer is modified to contain carboxyl groups which are sensitive to alkalies and thus render the compound soluble in soap solution. The material is soluble in most of the common solvents and may be rendered water soluble by partial or complete neutralization with ammonia or stronger alkalies. AMPD (2-amino - 2 - methyl-1,3-propanediol) effects permanent neutralization without adversely affecting solvent solubility. Thus it is possible to formulate an alcohol solution of the copolymer which will dry to a water soluble film simply by adding AMPD to the solution, or by adding it to the alcohol before making the solution.

Hair sprays based on the copolymer are shampoo soluble due to the presence of carboxyl groups, as mentioned above. An added safety factor in the form of water solubility can be built into these films by complete or partial neutralization of the resin. However, the degree of neutralization governs the moisture pick-up of the film and determines its water repellency and tackiness characteristics. This makes it a critical point in formulation but offers the formulator a wide scope wherein he may tailor his product to individual requirements.

Vinyl acetate copolymer incorporating carboxyl groups and AMPD yields aerosol hair sprays of good affinity for hair, luster, and curl control. The resin provides controlled water sensitivity and alkali dispersibility. Sprays can be cold filled or pressure loaded with propellants 11 and 12. In order to maintain solubility at temperatures of 0°F. solvents must be added such as, for example, acetone, ethyl acetate or methylene chloride. A 20 per cent by weight replacement of special denatured 40 anhydrous alcohol is suggested. Conventional tin lined cans can be used without corrosion problems, according to Weitzer.

The material has been tested for skin irritation, eye irritation and oral toxicity and found to be harmless, according to the speaker. Inhalation tests are currently being carried out. Mr. Weitz reported that "at the present time 'Resyn 28-1310' is being used in several hair spray products and a number of companies have been sufficiently impressed by the properties of the resin to advance beyond the lab testing stage." National Starch has filed a patent application covering the material, its neutralization with AMPD and its applications.

"New Polysaccharide Gums by Microbial Synthesis" were described by Dwight L. Miller, R. F. Anderson, Allene Jeanes, and S. P. Rogovin, Northern Regional Research Laboratory, USDA, Peoria, Ill. Two new water soluble gums produced by microbial conversion of glucose were introduced. Their range of potential applications includes hair sprays and other cosmetics, where they might be film formers, viscosity regulators, etc. Their use for personal products would not be hampered by any toxicity problems.

Phosphomannan produced from glucose by a new yeast is mainly composed of mannose, pyrophosphate, and potassium in the approximate ratio of 10:1:2. The material is a white slightly hygroscopic powder, which is readily water soluble. Solutions are clear and thixotropic and at concentrations above one per cent they have a gel-like aspect. Viscosities of one and 1.5 solutions are comparable with those of some of the commercial water soluble gums. The gum complexes readily with borax to give a cohesive gel that does not adhere to glass.

Polysaccharide B-1459 is a high molecular weight heteropolysaccharide produced from glucose by bacterial conversion. Major components are mannose, glucose, potassium glucuronate, and acetyl in the approximate molar ratio of 2:1:1:1. This gum is a soft bulky powder slightly colored by pigment from the culture. The solid swells in water and dissolves to form homogeneous, opalescent, pseudoplastic solutions which set to a soft gel when cold. Viscosity increases in the presence of salt, is not affected by the presence of

(*Turn to Page* 145)

Speakers at the annual meeting of the Society of Cosmetic Chemists included, l. to r.: Dwight L. Miller, Northern Regional Research Laboratory, U.S.D.A., Peoria, Ill.; Dr. J. C. Houck, Childrens' Hospital Research Foundation, Washington, D. C.; Dr. Stanley Hazen, Eastman Dental Dispensary, Rochester, N. Y.; Paul Weitz, National Starch and Chemical Corp., New York, Dr. Joseph V. Klauder, dermatologist, Philadelphia, and Dr. Lester D. Apperson, Colgate-Palmolive Co., program chairman.

discovered: a key to hidden treasures of fragrance!

*nerone**

(brand of menthenyl ketone)

NERONE, *a new Givaudan synthetic aromatic chemical, makes available to the perfumer for the first time the fresh, natural odor effect of the exotic ketone portion of the essential oils.*

NERONE *is a pure concentrated note, free from the terpene and ester components that would hamper its adaptability, and is extremely stable without any discoloring effects. It enables the perfumer to achieve new and unusual soap and detergent fragrances that are also stronger, more stable and lasting – with increasing independence from essential oils!*

NERONE *offers fascinating possibilities for the creation of distinctive perfumes for cosmetics and toiletries, and also proves valuable as a fortifier for such essential oils as petitgrain, bergamot, lavender, neroli, vetiver, geranium, lemon. May we send you samples and full information on this new Givaudan development?*

**Trade-mark—Patent Pending*

GIVAUDAN-DELAWANNA, INC.
321 West 44th Street
New York 36, N. Y.

The Hyonic® LA Series . . .

HYPURITY ALKYLOLAMIDES

for use with other surface-active agents in

DISHWASHING DETERGENTS • SHAMPOOS • BUBBLE BATHS • INDUSTRIAL CLEANSERS

LIGHT DUTY LIQUID CLEANERS • FLOOR CLEANING PREPARATIONS • TEXTILE DETERGENTS

Conventional alkylolamides have long been made by condensing two moles of diethanolamine with one mole of fatty acid. The excess quantity of diethanolamine was considered necessary to prevent the formation of undesirable ester-amide at the expense of the true surface-active agent. The conventional alkylolamides, therefore, contain about 60% alkylolamide, with the remainder being unreacted diethanolamine and diethanolamine soap.

Now, however, with increased understanding of the chemical reactions involved, we have produced a series of alkylolamides which virtually eliminate unreacted diethanolamine, ester-amide, and other by-products. These new surfactants are the Nopco Hypurity Alkylolamides. Their amide contents approach 100%, in contrast to the usual 60%.

Nopco manufactures a complete line of surface-active chemicals, and manufacturers who place a single order for all their needs make a dual saving—they qualify for quantity price discounts and they save on freight.

ADVANTAGES OF NOPCO HYPURITY ALKYLOLAMIDES when combined with other surface-active agents

- *They build and stabilize foam*
- *They increase the viscosity of liquid detergent products*
- *They improve detergency and wetting*
- *They inhibit rusting of steel containers*

Write today for samples and literature on the Nopco Hypurity Alkylolamides:

Hyonic LA-96 • Hyonic LA-90 • Hyonic LA-70
Hyonic LA-50 • Hyonic LA-45 • Hyonic LA-40

Let Nopco chemists help tailor your product to your exact performance and sales requirements. They are waiting to go to work for you. Nopco Chemical Company, 60 Park Place, Newark, N.J.

NOPCO® VITAL INGREDIENTS FOR VITAL INDUSTRIES

Harrison, N.J. • Richmond, Calif. • Cedartown, Ga. • Boston, Mass. • Chicago, Ill. • London, Canada

PINE OIL SMELLS CLEAN...CLEANS CLEAN

Today pine oil is one of the most important raw materials used in the manufacture of liquid detergents, soaps, laundry aids, general cleaners, disinfectants, and deodorants. There are two good reasons for this acceptance.

PINE OIL SMELLS CLEAN—It provides the end product with a smell as fresh and reassuring as a pine forest.

PINE OIL CLEANS CLEAN—Pine oil does more than impart odor. It has definite chemical properties as a wetting agent and solvent to actually assist the other components of a cleaning agent in cutting grease. And it has high bactericidal qualities as well.

To keep pace with the expanding demand for pine oil, Hercules and other producers have steadily increased their output and plan still more capacity for 1960.

Pine Chemicals Division
Naval Stores Department

HERCULES POWDER COMPANY
INCORPORATED

900 Market Street, Wilmington 99, Delaware

N-459-2

Chemical Specialties . . .

Aerosols
Automotive products
Bleaches
Bowl cleaners
Carpet cleaners
Cleaning fluids
Deodorants
Disinfectants
Floor waxes
and other floor products
Glass cleaners
Household ammonia
Insecticides
Mildew compounds
Moth specialties
Polishes
Repellents
Rodenticides
Sanitizers
Skin protectants
Stock sprays
Sweeping compounds
Wax strippers
Weed chemicals
and other
Chemical Specialties

Originator of so-called "bright drying" floor polish, George F. Rodawald of Nu-Farm Polish Co., St. Louis, was honored in absentia during CSMA's 48th annual meeting in Washington, D. C., last month. The occasion was the 30th anniversary of water emulsion floor polishes.

Annual Meeting . . .

At the 46th annual meeting of the Chemical Specialties Manufacturers Association held last month at Washington, D. C., one thousand representatives of the chemical specialties industry attended, the largest gathering of chemical specialty manufacturers in history. Producers, large and small, from all parts of the country, of aerosol products, floor maintenance products, detergent and soap specialties, polishes, automotive chemicals, deodorants, disinfectants, insecticides, and other chemical specialties were represented.

Since the founding of CSMA in 1914, it has drawn its membership from all segments of the field from the largest to the smallest manufacturers. Leaders in the industry have been prominent in its affairs. It has offered an open forum for the exchange of ideas and for valuable contacts to its members.

Membership in CSMA could have advantages for your company. It's worth looking into.

A. A. MULLIKEN, *Secretary*

CHEMICAL SPECIALTIES MFRS. ASSOCIATION — FOUNDED — CSMA — 1914

Chemical Specialties Manufacturers Association, Inc.

50 East 41st Street — *George W. Fiero, President* — **New York 17, N. Y.**

H. W. Hamilton, Executive Vice-president — *Charles E. Beach, 1st Vice Pres.*

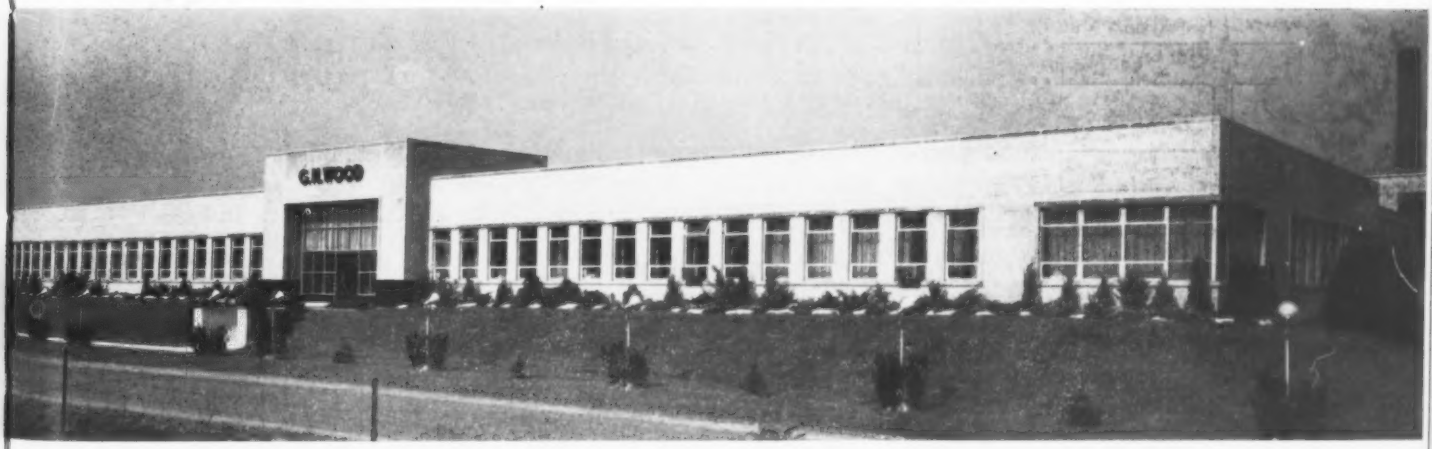
Charles E. Allderdice, Jr., 2nd Vice Pres. — *Frederick G. Lodes, Treasurer*

A. A. Mulliken, Secretary

From Canada
TO
ALL OUR FRIENDS
IN THE U.S.A.

BEST WISHES FOR A VERY HAPPY AND SUCCESSFUL NEW YEAR!

May the Friendship
and Business Relations
Between Our two Countries
Continue to Flourish.



'Sanitation for the Nation'

G. H. WOOD
& COMPANY LIMITED
TORONTO • MONTREAL • VANCOUVER • BRANCHES ACROSS CANADA

*CANADA'S LARGEST MANUFACTURER AND DISTRIBUTOR OF SANITATION PRODUCTS

MGK

Dual Synergist System

(MAYBE NOT TWICE AS GOOD BUT CERTAINLY BETTER)

QUESTION ... What does MGK Dual Synergist System do that a single synergist does not do with pyrethrum?

ANSWER ... Impartial tests by independent laboratories and qualified entomologists prove that, in insecticidal sprays and aerosols, the use of the MGK Dual Synergist System provides a higher rate of kill of flies and roaches resistant to chlorinated hydrocarbons and organic phosphorus compounds . . . and at equal cost.

MGK McLAUGHLIN GORMLEY KING Company

1715 S. E. Fifth Street • Minneapolis, Minnesota

McLAUGHLIN GORMLEY KING COMPANY
1715 S. E. Fifth Street • Minneapolis, Minnesota

● Please send full details and new Fact Sheet on pyrethrum with MGK Dual Synergist System.

NAME _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

Newly elected officers and members of the board of governors of the Chemical Specialties Manufacturers Assn. Seated, left to right: Charles E. Beach, John C. Stalfort & Sons, Inc., first vice-president; George W. Fiero, Esso Standard Oil Co., president; Charles E. Allderdice, Jr., Bell Co., second vice-preside..i Standing, l. to r.: Joseph J. Tomlinson, General Chemical Division, Allied Chemical Corp. board member; Joseph E. Lee, McLaughlin Gormley King Co., board member; A. A. Mulliken, secretary; H. W. Hamilton, executive vice-president and general manager; Frederick G. Lodes, Lodes Aerosol Consultants, Inc., treasurer, Peter C. Reilly, Reilly Tar & Chemical Corp., retiring treasurer who becomes three year board member.

CSMA Meets, Elects Fiero

TINGED with overtones of tragedy and sentiment, the 46th annual meeting of the Chemical Specialties Manufacturers Assn., held at the Mayflower Hotel, Washington, D. C., Dec. 8-9, went down into history as the largest such gathering ever held by the organization. The attendance of approximately 950 registrants was recorded during the first "closed" meeting of the association. Only members and those invited by the president of CSMA were permitted to attend the Washington meeting.

Tragedy brushed the technical-management gathering of chemical specialties makers and suppliers as Michael Coppola of the Freon Products Division of E. I. du Pont de Nemours & Co., died following a heart attack as he was playing cards in the suite of Continental Can Co. on the night of Dec. 8.

A sentimental note, not usually experienced at a CSMA meeting, was clearly felt in two actions involving H. W. Hamilton, longtime secretary of the association. The first tear-filled moment came as Mr. Hamilton spoke his farewell words to the Board of Governors of CSMA upon his retiring as secretary. The second event that was charged with emotion was the presentation of the CSMA 1959 Achievement Award to Mr. Hamilton following luncheon on Dec. 9. In presenting the seventh CSMA Achievement Award, Donald M. King, head of Masury-Young Co., Boston, and president of CSMA declared that "This moment is the supreme highlight of my year as president of CSMA."

After telling of Mr. Hamilton's background and reading the inscription on the plaque, presented to the retiring CSMA secretary, Mr. King commented. "This doesn't tell of the countless extra hours Doc has spent over the years as secretary of CSMA . . . of the countless times that Doc has smoothed ruffled feathers of members with his diplomacy. It doesn't tell of the tremendous load he carried when with Koppers Co. or when he had his own business, or of the respect CSMA has gained among other trade associations."

Mr. King said further that

"CSMA is a strong, vibrant, successful organization that couldn't have carried on without Doc, who has been actively participating in CSMA affairs for 38 years."

In conclusion, Mr. King stated, "I doubt that the association will have a true appreciation of what this man has done until a few years later."

Mr. Hamilton responded that he much appreciated the Achievement Award. He said that although he had been a member of the association for 38 years, it seemed a short time. For 33 years he served in CSMA in an administrative capacity, Mr. Hamilton recalled.

Mr. Hamilton told of the first CSMA meeting he had attended. At the meeting, which was held in Atlantic City, N. J., 25 persons, 100 percent of the members were present.

"The trade association is absolutely required in American business life," Mr. Hamilton declared. He added that "every company should be a working member of a trade association." He also pointed out that "industry must take steps to regulate itself." In addition, he stated, the trade association "must take a leading role in raising standards in industry."

In addition to papers presented on a wide range of subjects during the sessions of the six divisions of which CSMA in composed, other highlights of the meeting included election of new officers and directors for 1960; announcement of winners of the annual aerosol package contest and presentation of plaques to representatives of firms having winning entries; commemoration of the 30th anniversary of water emulsion ("dry bright") floor polishes; and three outstanding addresses by guest speakers.

Selected to serve as president of Chemical Specialties Manufacturers Assn. for 1960 is George W. Fiero of Esso Standard Oil Co., New York, who succeeds Donald M. King, head of Masury-Young Co., Boston. Mr. Fiero served as CSMA first vice-president last year. Moving up as first vice-president is Charles E. Beach, John C. Stalfort & Sons, Inc., Baltimore. Succeeding Mr. Beach as second vice-president is Charles E. Allderdice, Jr., Bell Co., Chicago, a member of the CSMA Board of Governors.

A. A. Mulliken, assistant secretary of CSMA, was elected secretary to succeed H. W. Hamilton, who had held the office since 1942. Mr. Hamilton has been associated with CSMA and its predecessor organizations for the past 38 years, having served also as president, a member of the Board of Governors and chairman of the executive committee.

The new secretary, A. A. Mulliken, joined CSMA as a full-time paid employee in 1956. Earlier, for seven years he had been with the Philadelphia branch of Creamery Package Manufacturing Co., Chicago. Prior to that he had been budget director of International Minerals & Chemical Corp., Chicago, for six years. Upon

H. W. Hamilton, right, retiring secretary of CSMA, receives association's 1959 Achievement Award plaque from Donald M. King, CSMA president.

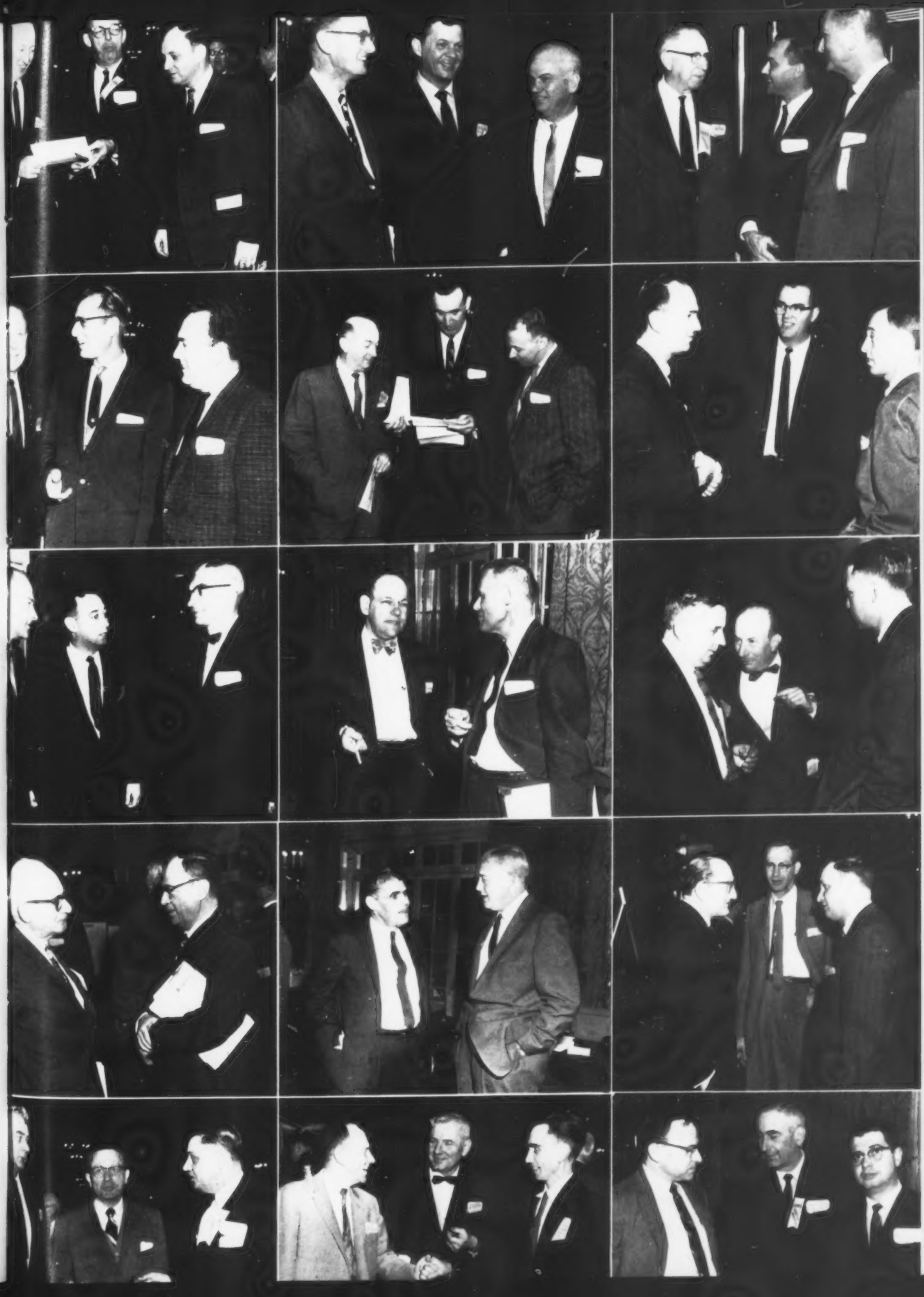
Captions: Facing Page

Top row, left to right: E. E. Husted, Union Carbide Chemicals Co.; Charles S. Stephens, American Can Co.; Edwin I. Stoltz, Adell Chemical Co.; Edmond G. Young, E. I. du Pont de Nemours & Co.; Frederick G. Lodes, Lodes Aerosol Consultants, Inc.; W. E. Graham, Clayton Corp.; H. W. Hamilton, CSMA; Robert L. Ackerly, Cummings, Sellers, Reeves, and Conner; Shockley C. Gamage, Magnus, Mabee & Reynard, Inc.

Second row: W. D. Ackley, van Ameringen-Haebler division of International Flavors and Fragrances, Inc.; Louis M. Seso, S. C. Johnson & Son, Inc.; R. Larry Brett, Fairfield Chemical Division, FMC; J. H. Fredette, American Can Co.; Ralph W. Kaerhcer, American Can Co.; Donald B. Peck, Fuller Brush Co.; M. A. Bienvenu, Aerosol Corp. of the South; John Haslip, Pennsalt Chemicals Corp.; Irving Goldberg, Aerosol Research Co.

Third row: R. Gigger and J. J. Hood, Geigy Chemical Corp., George Schumaker, Velsicol Chemical Corp.; B. S. Kroot, Huntington Laboratories, Inc.; Jay C. Harris, Monsanto Chemical Co.; Robert H. Sommer, Mona Industries, Inc.; Louis E. Brunner, Brulin & Co.; Don Hoover, Vulcan Steel Container Co.

Fourth row: Emil G. Klarmann, Lehn & Fink Products Corp.; George McLaughlin, McLaughlin Gormley King Co.; E. L. Collins, Chilean Nitrate Sales Corp.; Louis Brennersholtz, Yardley of London, Inc.; Walter Mannheimer, Miranol Chemical Co.; John D. Marks, H. B Meyer & Son, Inc.; Edwin I. Stoltz, Adell Chemical Co.; Thomas Armstrong, Industrial and Biochemical Division, E. I. du Pont de Nemours & Co.; Ken Nelson and A. E. Budner, S. C. Johnson & Son, Inc.; George R. Freund, Cornelius Wax Refining Corp.; Henry Blanchford, Mantrose Corp.; Joseph Ayd, John C. Stalfort & Sons, Inc.; Max Potash, Polyvinyl Chemicals, Inc.; Chapin E. Stevens, General Aniline & Film Corp.; Daniel B. Witwer, Polyvinyl Chemicals, Inc.



graduation in 1932 from Massachusetts Institute of Technology, Mr. Mulliken joined U.S. Shoe Machinery Corp., Beverly, Mass.

Another major change among the officials of CSMA involves the retirement as treasurer of Peter C. Reilly, president of Reilly Tar & Chemical Corp., Indianapolis. Mr. Reilly, who held the post for 10 years, is succeeded by Frederick G. Lodes, head of Lodes Aerosol Consultants, Inc., New York. Mr. Lodes, who has previously served as a member of the Board of Governors of CSMA, last year was vice-chairman of the budget and finance committee. He has also been chairman of the Aerosol Division's market development and publicity committee.

Elected to three-year terms on the Board of Governors were: Donald M. King, retiring president, and Peter C. Reilly, Reilly Tar & Chemical Corp., retiring treasurer. Joseph E. Lee, McLaughlin Gormley King Co., Minneapolis. Joseph J. Tomlinson, General Chemical Division, Allied Chemical Corp., New York, was elected for a one-year term.

Aerosol Package Contest award winners, standing, l. to r.: L. G. Underwood, Cort Cosmetics, Inc. (hair preparations); L. L. Brennersholtz, Yardley of London, Inc. (shave products); Walter O. Tritschler, Standard Oil Co. (Ohio) (miscellaneous personal products); E. W. Drinkuth, American Home Products Corp. (room deodorants); Kenneth W. Burke, Lenk Co. (miscellaneous household products); Jerry C. Smolik, Craftint Manufacturing Co. (paints, enamels, etc.). Seated, l. to r.: Frederick G. Lodes, Lodes Aerosol Consultants, Inc., chairman of Aerosol Package Awards Committee; Ted C. Gruhler, Avoset Co. (food products and best of show); Miss Kay Reed, Parfums Ciro, Inc., (perfumes, colognes, toilet waters); Herbert D. Fine, Plasti Kote, Inc. (industrial products).

Aerosol Division

A prediction that "production and sales of aerosols) should reach at least one billion nonfood aerosol units per year by 1968, doubling the present rate," was voiced in a paper by Ralph A. Crane, market research manager of the Freon Products Division, E. I. du Pont de Nemours & Co., Wilmington. Mr. Crane's paper, read by A. H. Lawrence, Jr., manager of "Freon" aerosol propellant sales, was the first feature of the opening session of the Aerosol Division, Dec. 8. Mr. Crane's paper appears in full beginning on page 153 of this issue.

Aerosol products have a two-fold appeal to grocery marketers, Gerson Barnett, director of purchasing, Giant Food Stores, Landover, Md., second speaker of the session, declared. First, he explained, "retail volume (for aerosols) was done at a margin of profit for the grocery chains that is considerably higher than the average margin of all other products retailed by them." This new business volume is not at the expense of products sold in other forms of packaging. Another "plus" value of aerosols sold through grocery chains is the fact that they require "minimum shelf space," according to Mr. Barnett. He also revealed that pressure package dollar volume on sales through grocery stores in 1958 amounted to $206,000,000 a 21 per cent increase over the previous year.

Mr. Barnett did caution aerosol marketers selling food chains to ". . . prepare yourselves to be extra efficient, provide the maximum of service to your customers, keep competitive, offer top quality and value, and continue to offer an ever-increasing variety to please the desires of the modern American family."

Although pressure packaged products are being sold at the rate of some 600 million units per year through food stores, there is a large area for further growth, according to James O. Peckham, executive vice-president of A. C. Nielsen Co., New York. Four large potential fields for aerrosol growth cited by Mr. Peckham were: hair tonics and hair sprays, shampoos, furniture polishes and general household cleaners. He also stated that food products in pressure packages offer a large potential market. The complete text of Mr. Peckham's presentation begins on page 91 of this issue.

"Quality" is the "key to the future of aerosol packaging," Harold L. Schafer, president of Gold Seal Co., Bismarck, N.D., told the Dec. 8 session of the Aerosol Division. He stressed the importance of sellin gaerosol products.

"No one thing, TV, radio or newspaper advertising is the answer," he declared. While advertising in these media "represents knowledge to the consumer,

you must work at your job to sell the customer," he said.

"You must feel your product is the best, that the consumer will feel it is the best. To do this, Mr. Schafer said, "you must give your product a touch of greatness."

Although pressure packaged products have capturued 20 per cent of the market for household window and glass cleaners, his own product, Gold Seal "Glass Wax," has not, as yet, been successfully pressure packaged, Mr. Schafer revealed.

The "contribution of aerosols to the future growth of packaging will be immense," according to William C. Sims, associate editor of *Modern Packaging*. "Aerosols," he continued, "were one of two or three of the main developments in packaging in the past 10 years."

In his talk, Mr. Sims used slides of aerosol packages to illustrate the following points:

• Spell out direction for use of a product.

• Make the type on the package large enough to be read if the directions are vital to the operation of the product.

• The kind of package you use tells the consumer what you think of the product.

• Pictorial illustrations are useful in telling the function of the product.

• Obtain the best possible illustration for the package.

• Making products easier to select makes them selected more often.

• New materials and combinations offer help in achieving uniqueness in packaging.

Looking ahead, Mr. Sims indicated that drugs and pharmaceuticals offer great areas of growth promise for pressure packaging. He also said that there is "always a place for elegance in packaging."

"Aerosols for the younger set is a largely untapped field," according to Mr. Sims.

He also observed that if "the future is bright for aerosols, it is because they are at the head of a major packaging trend."

He cautioned marketers of aerosols to be guided by the "fundamentals of good packaging."

"Packaging revision," Mr. Sims concluded, "almost always results in increased product sales. And, attention to packaging details does not mean higher costs, but often savings."

The first session of the Aerosol Division concluded with the announcement of the aerosol package contest award winners and the presentation of plaques, Frederick G. Lodes, Lodes Aerosol Consultants, Inc., New York, chairman of the packaging awards committee, was in charge of the presentation.

Harold L. Schafer, president of Gold Seal Co., Bismarck, N. D., left, tells Aerosol Division "aerosols must be sold". Charles E. Beach, John C. Stalfort & Sons, Inc., Baltimore, newly elected first vice-president of CSMA presides at luncheon Dec. 9.

Detergent Division

A symposium titled "Time, How to Make the Most of It," was the feature of the first session of the Detergent and Cleaning Compounds Division, Dec. 8. W. S. Jessop, U.S. Sanitary Specialties Corp., Chicago, division chairman, presided. In his address as division chairman, he noted that two general topics of interest to members, product certification lists and precautionary labelling, were receiving attention by CSMA. The general committee expected to issue a manual on the latter early in 1960.

Moderator for the symposium was A. A. Milask of Atlantic Refining Co., Philadelphia, who outlined the areas that the discussion would encompass. These included research, purchasing, production of chemical specialties, marketing of chemical specialties, and distribution and shippipng.

Daniel H. Terry of American Home Products Corp., Cranford, N.J., covered the first part of the symposium on research, describing the functions and objectives of a company's research and development department. Asking how the research and development department can make the most of its time, Mr. Terry pointed out that communication channels at all levels must be efficient; the organization must have clearly defined yet flexible duties for all personnel, with the research director delegating responsibility; the staff should be made up of able and imaginative chemists who are free from routine tasks; laboratory facilities should be adequate and should provide proper space, equipment, supplies, and a library; research projects should be selected and based upon the company's objective; teamwork is necessary for the efficiency of the research department; morale of the department must be kept high through the proper utilization of the time

C. S. Kimball, top, of Foster D. Snell, Inc., New York, chairman of Waxes and Floor Finishes Division of CSMA, salutes George F. Rodawald originator of water emulsion waxes, during Dec. 8 luncheon.

Retiring CSMA president, Donald M. King of Masury-Young Co., Boston, presiding at Dec. 8 luncheon.

H. W. Hamilton making his final report as secretary of CSMA, during general session Dec. 9. He has held this post for nearly 20 years.

Robert L. Ackerly of Cummings, Sellers, Reeves and Conner, Washington, D. C., CSMA counsel tells general session, Dec. 9 that FTC will crack down on price discrimination and unfair advertising allowances.

of all personnel with the knowledge that all are working for the same company toward the same objectives; and strategic use of the department's existing facilities and personnel.

Melvin Fuld of Fuld Brothers, Inc., Baltimore, spoke on the purchasing agent's utilization of time. Usually the purchasing agent has too many people to see, too much material to read, too many problems to solve ,and "too much of this and too much of that," Mr. Fuld said. In streamlining his work load, the purchasing agent should keep abreast of the times by obtaining his information from the best source, listen carefully for what is said rather than how it is said, use the seller's research, communicate properly through his letters by writing simply and naturally, establish a blanket purchasing system, make use of "brain-storming" sessions, take speed reading courses, make charts for apportioning time, and make interviews with salesmen concise.

Problems of making the most of time in the production of chemical specialties for other than retail markets are much the same as in other industries, according to Julius A. Neuberger and Herbert L. Green of Brulin & Co., Indianapolis, in a paper delivered by Mr. Neuberger. This paper appears in full beginning on page 163.

In discussing the marketing of chemical specialties, Edwin I. Stoltz of Adell Chemical Co., Holyoke, Mass., described his company's policies on the first two of the three essential functions of marketing—advertising, selling, and distribution. Slanting his remarks to the household consumer field, Dr. Stoltz noted that Adell's advertising budget is mainly allocated to television. All the firm's commercials for this medium are made within a certain framework based on company advertising policies, Dr. Stoltz stated. These policies include: all commercials or other advertisements must be factual; no comparisons should be made with another product or products; all statements must be of a positive nature; and the approach is soft so as not to antagonize the listener such as the demonstration type of commercial which has been found the least antagonizing. In selling chemical specialties, Adell has found the following framework for governing its sales policies to be successful: salesmen are cautioned against making comparisons with other products; there is no high pressure selling to load a quantity of merchandise on a customer; fair trade is maintained and there is no price cutting or deviation from the established price; no free goods; and one price for all. Dr. Stoltz noted that the company has maintained the belief that each participant engaged in selling its products must make a profit.

William F. Dahms of R. M. Hollingshead Corp., Camden, N.J., presented a paper on distribution and shipping. Co-author was Charles J. Strom, also of Hollingshead. Describing distribution and shipping as the lifeline of any business, Mr. Dahms discussed the effect of modern materials handling methods; rules and regulations of the Interstate Commerce Commission on shipments; particular problems of the chemical manufacturer; classification and routing of shipments; utilization of space; the role of the traffic department; proper handling of paper work and importance of accuracy; and

the consolidation of shipments for savings in freight. Several points were cited by Mr. Dahms as ways to improve and advance a firm's distribution and shipping operations. These were to: reassess markets; analyze total distribution cost; review packaging; prevent cramming by ordinary traffic; and keep up with what the carrier can offer.

Disinfectants and Sanitizers

A symposium, "What Is the Home Environment?" featured the first session of the Disinfectants and Sanitizers Division, Dec. 8. The first paper, "Common Diseases Communicable from Household Pets to Man," was by R. L. Burkhart, V.M.D., American Cyanamid Co., Princeton, N.J. Dr. Burkhart covered such infections as viral, bacterial, fungal and helminth. The problem of controlling these infections, he said, varies mainly according to the type of organisms, rather than the host species.

According to findings reported in a study by Dr. Mary A. Swaebly-Ehrlich of Duquesne University, there is no apparent relationship between the numbers and kinds of organisms present in the air outside the home and those present inside the home. Dr. Swaebly-Ehrlich, whose paper, "Mold Populations Within the Home," was the second discussion of the symposium, pointed out that the mold population of the outside air follows a fairly predictable seasonal trend characteristic for a given area. The degree of activity within the home at any given time, this Duquesne department of biology professor explained, largely determines the number though not the kinds of organisms present in the air. Both new and used furniture stuffing materials, including foam rubber, contain many fungi, she said. As furniture is subjected to use, the kinds as well as the number of organisms in the stuffing may change, the speaker stated.

Home automatic clothes washers, under certain conditions, can effect a "99 per cent reduction in numbers of bacteria in bedding linen and clothes and avoid cross infection contamination of different batches of materials." In making this statement, Dr. Milton J. Foter of Robert A. Taft Sanitary Engineering Center, U.S. Public Health Service, Cincinnati, third panelist, outlined how such a reduction in bacteria count was possible. His subject was "Disinfection of Bedding and Bedding Materials." According to Dr. Foter, "good washing action, an effective detergent, water above 145°F, wash cycle of 10 to 20 minutes, and use of an effective germicide in the rinse cycle" will bring about a 99 per cent reduction in bacteria count.

Disinfection of mattresses, pillows, bedding linens, and clothing in homes is not as well defined as in hospitals and commercial laundries, according to Dr. Foter. He suggested methods for using some of the readily available agents currently being marketed to disinfect bedding linen, blankets and clothing.

Criteria applicable to the evaluation of new cleaning compounds intended for application to hard surfaces in the home were presented by David Justice of Lever Brothers Co. in a paper entitled "Modern Cleaning Methods in the Home." Use requirements in the home pertain to the removal of visible soil and to the control of microbiological contamination. In addition to its effectiveness as a soil remover, a household product must also be mild to the skin and of low systemic toxicity.

Both laboratory and consumer tests are required to screen and evaluate a household product, both as a cleaner and a sanitizer. The infinite variety of conditions to which it will be exposed in use must be kept in mind to make tests meaningful.

Visitors to the floor wax exhibit during the CSMA meeting included, l. to r.: C. L. Weirich, C. B. Dolge Co., Westport, Conn., Bayard Johnson, Franklin Research Co., Philadelphia; Glenn A. Doerr, Federal Varnish Division, Chicago, and Al Candy, Candy and Co., Chicago.

Waxes, Floor Finishes Div.

"Business activity will make another record high in 1960," so stated Ira T. Ellis, an economist with E. I. du Pont de Nemours & Co., Wilmington, Del., first speaker of the opening session of the Waxes and Floor Finishes Division, Dec. 8. In spite of the longest steel strike in history, 1959 was the best business year the U.S. has ever seen, according to Mr. Ellis. In 1959 new records were established in industrial production, in

physical volume of construction, and in imports, the du Pont economist declared. Last year new records were established in employment, personal income and the purchasing power of purchasing income after taxes, and in corporate profits, Mr. Ellis said.

"Assuming no substantial change in international tension, I believe the level of business activity will make another new high record in 1960, based on increases in automobile production and sales, business spending for new plant and equipment, and business inventories. Residential construction may decline significantly next year," Mr. Ellis said.

He predicted an upward trend in the decade ahead, with some years of "high business activity" and some "years of adjustment."

New chemical advances in the development of synthetic ingredients that will make possible self-polishing floor waxes which are greatly superior to those now on the market were predicted by a leading research official of the largest U.S. floor wax maker.

Dr. J. Vernon Steinle, research and development vice-president of S. C. Johnson & Son, Inc., told the Waxes and Floor Finishes Division of CSMA that the self-polishing floor wax of the future will be developed through the synthesis of a singular molecular structure in the form of an emulsion polymer." He said the properties "built" into a single molecule polymer emulsion will provide a floor wax that will:

- Have a higher gloss than present products;
- Resist wear under normal traffic for several months;
- Regain its initial gloss with rebuffing;
- Be impervious to spotting by water or even soap and water, but which will be readily removable by the addition of a simple common chemical to the wash water.

Hawley on Business

American business has "drifted into the most wasteful, inefficient approach to industrial management of any country on earth" author-executive Cameron Hawley charged in a luncheon address Dec. 8. He added that "junior level management has not been brought up to accept responsibility the way Europeans have.

Mr. Hawley, one-time vice-president in charge of advertising for Armstrong Cork Co., Lancaster, Pa., became a successful writer of fiction and non-fiction on business and economics. He is the author of "Cash McCall" and "Executive Suite." A new book by him will be published this spring. Mr. Hawley who has traveled around the world interviewing and consulting business leaders told close to 600 persons attending the first group luncheon during the 46th annual CSMA meeting, Dec. 8, that he was "positive high wage rates (in the U. S.) are not our source of weakness. The foreign advantage is much less than in other areas." As an illustration of overstaffing with management people he cited an American plant having 921 salaried employees, against 220 in a comparable European firm. As a result of this uneconomic situation, Mr. Hawley said it is now "the aim of American business to attempt to have made overseas finished products or components."

"The United States is now importing more than it exports," he said, adding now it is "only a trickle; the flood is yet to come."

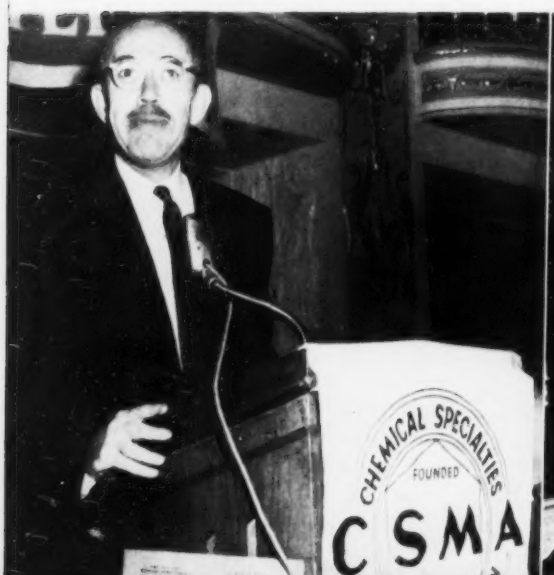
He further declared that "we are more seriously threatened by our friends than by our enemies. American manufacturers are responsible for this," Mr. Hawley declared.

He also observed that the "American economy is to be challenged in the immediate future more keenly than ever before."

Mr. Hawley attributed the abhorrence of many middle management people to the dictatorial type of big business executive to the fact that so many management people spent their formative years

(*Turn to Page* 109)

Cameron Hawley
"Too much management . . ."



Kenneth McFarland
"Let's forget progressivism"

Hon. David W. Kendall
"Prepare for sacrifices . . ."

SILICONE NEWS from Dow Corning

For "Effortless" Profits

Dow Corning Silicones Make Polishes Easier To Apply, Easier To Sell

Shine? There's no question . . . every consumer expects *all* polishes to shine. With many types of polish on the shelf to choose from, users look for other features in addition to high gloss and sparkle. They want to know "how much work?", "how much time?" . . . things like that. They're busy . . . they want the best shine in minimum time with least effort.

How can you economically add this kind of modern consumer appeal to your polishes? Easy . . . just include Dow Corning silicone fluid in your formulations. Its low surface tension results in superior spreading and wetting characteristics . . . helps form a smooth, continuous film more easily, more quickly. In all forms of polishes, from paste to liquid to aerosol spray, silicones help assure an easy-to-apply, uniform finish that knows no peer for lasting beauty. Because Dow Corning Silicones have excellent resistance to water, heat, cold, weathering, oxidation . . . all factors that work against the life of a polish . . . durability is "automatic." Dow Corning researchers are constantly working on new developments, new silicones, new formulations for polishes of every type . . . polishes for automobiles, furniture, glass, appliances.

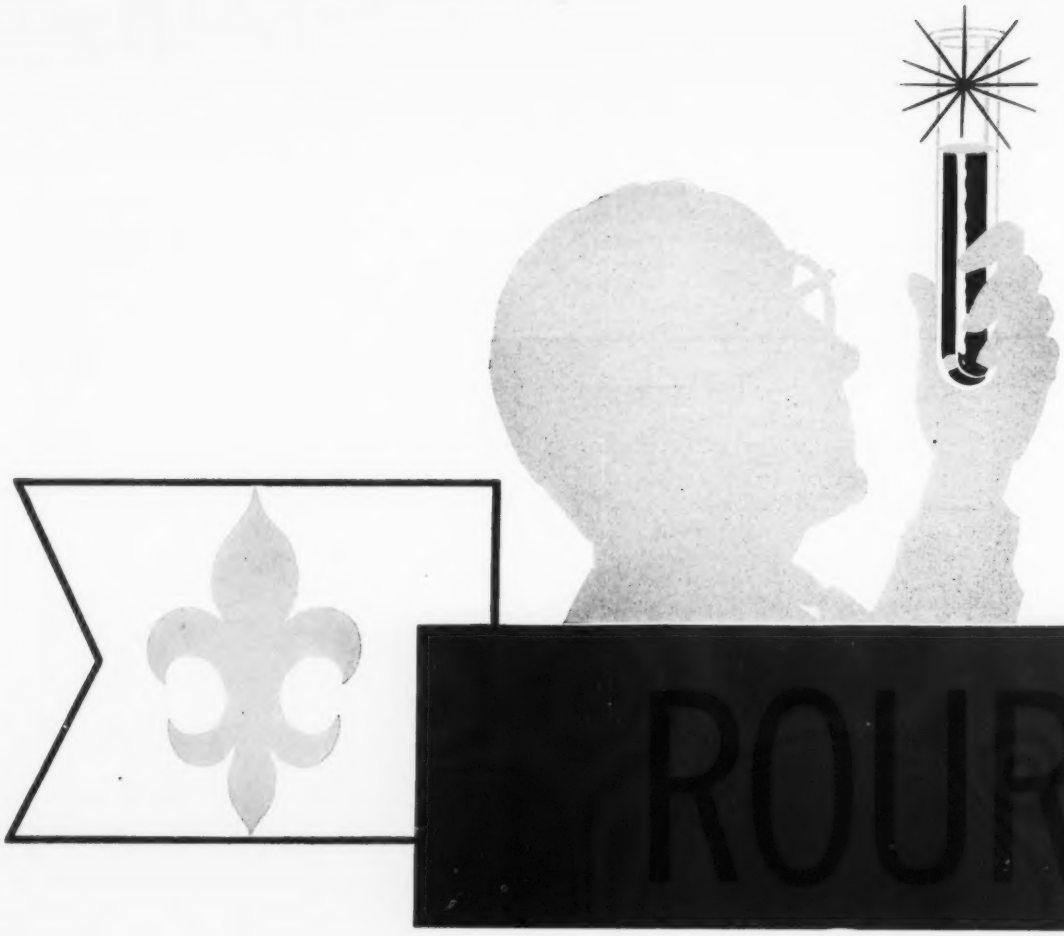
Technical assistance is always available to help you formulate better silicone polishes. For latest information and data, call the Dow Corning branch office nearest you or write Dept. 2501.

Your nearest Dow Corning office is the number one source for information and technical service on silicones.

first in silicones

Dow Corning CORPORATION
MIDLAND, MICHIGAN

ATLANTA BOSTON CHICAGO CLEVELAND DALLAS LOS ANGELES NEW YORK WASHINGTON, D. C.



WORLD-WIDE RESOURCES
WORLD-WIDE SERVICES

Roure-Bertrand Fils, Grasse, and Justin Dupont, Argenteuil, France, as well as their facilities in North Africa, India, the Far East and South America, have for decades been prime processors of basic ingredients for the perfumers of the world.

Their creative genius is attested by the many proven international successes in the field of fragrance requirements . . . be it in the development of original perfumes, colognes, aerosols, cosmetics, soaps and other toiletries . . . or in the masking area where odors have to be covered rather than developed.

Roure-Dupont, Inc. technical staff is in a unique position to put its vast international facilities and know-how at your disposal.

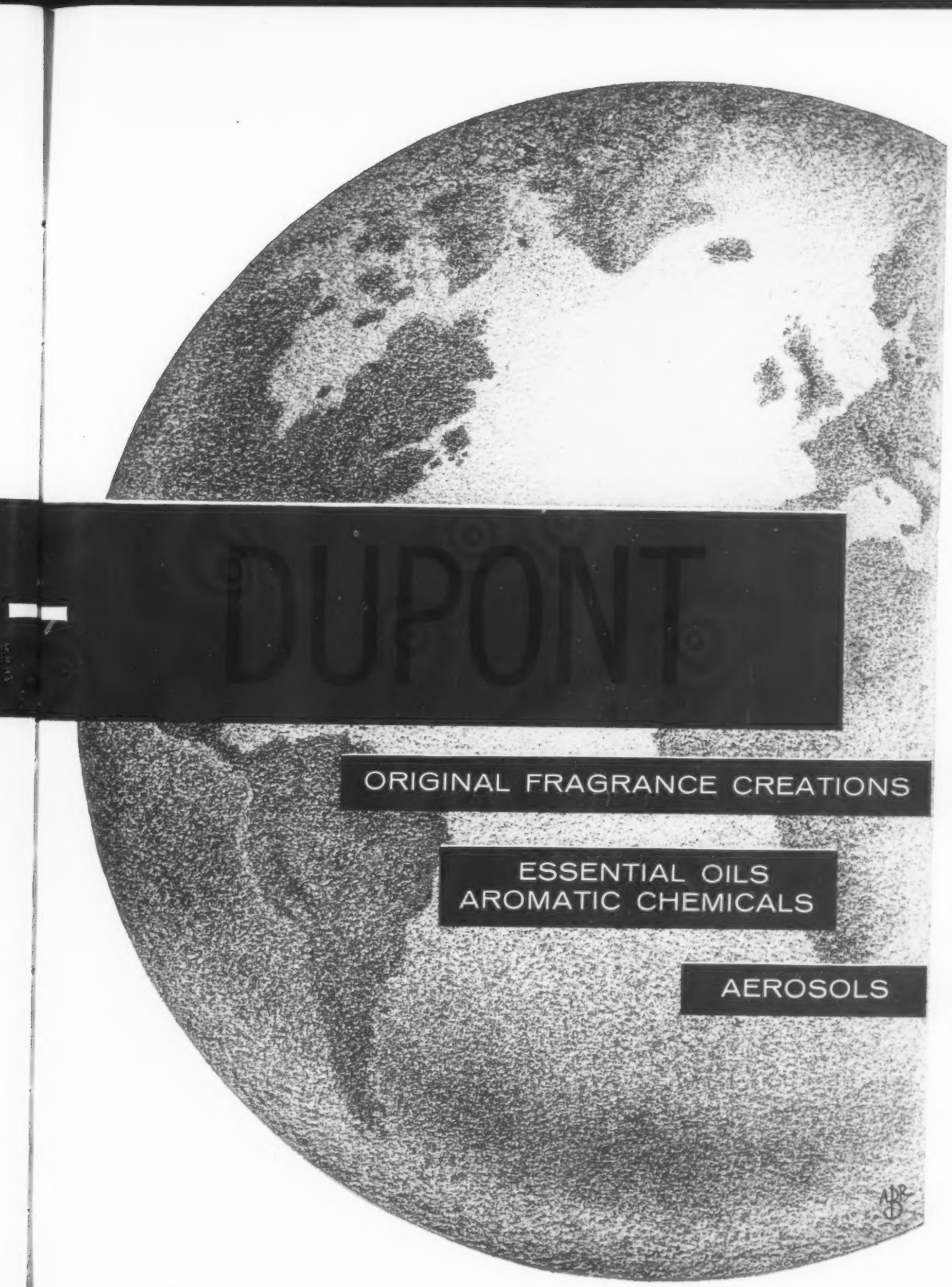
ROURE-DUPONT, INC.

Sole Agents for the United States and Canada for
ROURE-BERTRAND FILS et JUSTIN DUPONT, Paris, Grasse

CHICAGO
510 North Dearborn

366 Madison Avenue, New York
• MURRAY HILL 7-5830 •

HOLLYWOOD
5523 Sunset Blvd.


DUPONT
ORIGINAL FRAGRANCE CREATIONS
ESSENTIAL OILS
AROMATIC CHEMICALS
AEROSOLS

whatever your formulation need—
there is a
GEIGY INSECTICIDE
to help you get

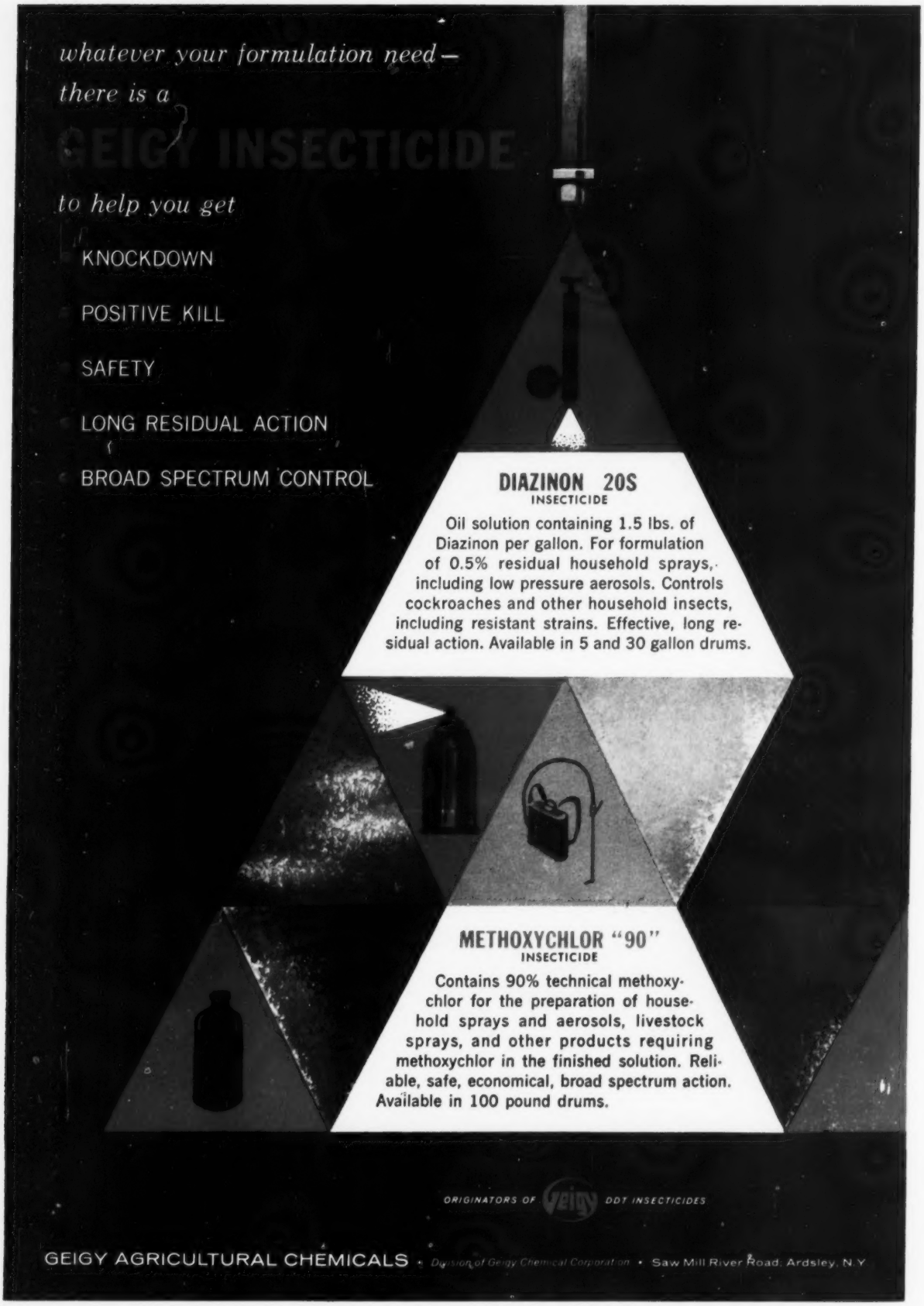
KNOCKDOWN

POSITIVE KILL

SAFETY

LONG RESIDUAL ACTION

BROAD SPECTRUM CONTROL



DIAZINON 20S
INSECTICIDE

Oil solution containing 1.5 lbs. of Diazinon per gallon. For formulation of 0.5% residual household sprays, including low pressure aerosols. Controls cockroaches and other household insects, including resistant strains. Effective, long residual action. Available in 5 and 30 gallon drums.

METHOXYCHLOR "90"
INSECTICIDE

Contains 90% technical methoxychlor for the preparation of household sprays and aerosols, livestock sprays, and other products requiring methoxychlor in the finished solution. Reliable, safe, economical, broad spectrum action. Available in 100 pound drums.

ORIGINATORS OF Geigy DDT INSECTICIDES

GEIGY AGRICULTURAL CHEMICALS • Division of Geigy Chemical Corporation • Saw Mill River Road, Ardsley, N.Y.

Development and mechanism of

Insect Resistance

to available toxicants

By A. W. A. Brown*
University of Western Ontario
London, Canada

INSECTICIDE manufacturers and pest control operators are very much concerned with the recent growth of the resistance problem to a point where indeed the initiative has passed to the insects. Fifteen years ago only 10 species had developed resistance to insecticides; now no less than 122 species are involved, 62 of which are of public health or veterinary importance. In this list we do not include the naturally resistant species; for example we do not call the Mexican bean beetle DDT-resistant but simply say that DDT is ineffective against that species. When we speak of resistance, we refer to resistant populations within the range of a susceptible species, where resistance has developed to the means of control which was formerly effective against that population, and which may be still effective against neighbouring populations of the same species.

This resistance has not developed by a process of habituation, and is not analogous to the adaptation that an individual can develop during his lifetime to increasing doses of narcotic drugs. Indeed, small harmless doses of insecticide applied to young insects only serve to make them finally more susceptible to a decisive dose, not more tolerant. Insects have been experimentally exposed for many successive generations to insecticide concentrations below the lethal level, and have never developed resistance. But let the concentration be increased to a point where it starts to kill a proportion of the population, and resistance can develop. Thus it is clear that resistance is the result of a process of selection, by which the naturally more susceptible individuals are removed, leaving the genetically more tolerant ones to produce the offspring. This process repeated generation after generation will ensure that only the resistant individuals are left to constitute the surviving population.

Experiments and experience with houseflies and other arthropods have shown that there are several distinct types of resistances. Selection pressure from DDT can induce resistance to DDT and its analogues DDD and methoxychlor, but not to other chlorinated hydrocarbons such as BHC, chlordane or dieldrin. On the other hand, dieldrin pressure can develop resistance to dieldrin and other cyclodiene derivatives such as chlordane, heptachlor, aldrin and endrin, and even to lindane (gamma-BHC); but this dieldrin-resistance does not extend to DDT and its analogues. That there are two types of resistance within the chlorinated hydrocarbon group of insecticides has become evident not only in houseflies, but also in other insects of public-health and veterinary importance, and even in agricultural insects.

Neither of these types of resistance extends to the organophosphorus (OP) compounds, which are thus remedial insecticides for the chlorinated hydrocarbons. However, houseflies which have developed OP-resistance as a result of selection pressure from OP compounds alone are found to have become highly resistant to chlorinated hydrocarbons in the process. Resistance to malathion is evidently different from resistance to parathion or diazinon; however, these specifications within the various OP compounds are unfortunately seldom noticeable in field populations. OP-resistant houseflies have been found to be resistant also to the carbamate insecticide "Sevin*," but this cross-resistance is not apparent in mosquitoes.

Disease Vectors

Modern insecticides have offered the unique opportunity for large-scale control of the insect vectors of disease, but the development of resistance is threatening to destroy it. The world-wide campaign to eradicate malaria is now confronted with the menace of resistance developing in the anopheline mosquitoes against the insecticides used in the residual sprays. Already DDT-resistance has developed in 7 species of *Anopheles*, and dieldrin-resistance in no less than 18 species, in certain parts of their range. About 5 per cent of the malaria eradication program is now being carried out in the presence of DDT-resistance, dieldrin-resistance, or both types. The body louse, vector of typhus fever, now offers serious problems; the DDT-resistance first discovered in Korea and Japan in 1951 has appeared in many countries, and there are examples of BHC-resistance in certain areas. DDT-resistance has devoleped in *Aedes aegypti*, the mosquito vector of yellow fever, at several places in the Caribbean region, and diel-

*Paper presented at 2nd annual meeting, Canadian Manufacturers of Chemical Specialties Association, Toronto, Nov. 3, 1959.

*Registered trade name of Union Carbide Chemicals Co., New ork.

drin resistance has recently appeared in Puerto Rico. The culicine mosquito vectors of filariasis and the encephalities diseases have developed in various regions not only resistance to either class of chlorinated hydrocarbon insecticides, but even to the remedial OP compounds. The use of DDT to control infantile enteric disease by attacking the housefly has remained effective for little more than two years in any one locality, and BHC or dieldrin was successful only for one subsequent year. The failure of insecticide control against certain species of fleas has also handicapped the fight against disease. For these reasons the World Health Organization has been conducting a world-wide programme on the resistance problem since 1956, with the aim of disseminating information and coordinating research. A number of conferences, seminars and expert committee meetings have been held in various parts of the world, and the 300-odd scientists interested in the problem have been brought together in a common effort.

Mode of Inheritance

Investigations on the mode of inheritance of DDT-resistance have frequently shown that it can be due to a single genetic factor, or gene allele. Evidence for this monofactorial inheritance has been obtained not only in the housefly but also in the mosquitoes *Aedes aegypti, Anopheles sundaicus* and *Culex fatigans.* Dieldrin-resistance in the mosquito *Anopheles gambiae* and the Australian sheep blowfly *Phaenicia cuprina* is also apparently due to a single gene. The gene allele for dieldrin-resistance has been shown to be already present in natural populations of *A. gambiae* in West Africa before dieldrin has ever been applied. Multiple genes of weaker and non-specific effect can produce a type of vigor tolerance against inimical stresses in general; this can be additive to specific resistance or even add up to what amounts to resistance, as has probably occurred in the codling moth against arsenicals.

Wherein does this power of resistance lie? For in truth a DDT-resistant housefly looks no different from the normal, its cuticle is no thicker, and DDT penetrates it just as readily as the normal. It has been found that the DDT-resistance is due to an ability to detoxify the DDT by removing HCl from the molecule, thus leaving only the non-toxic compound DDE. This dehydrochlorination is carried out by an enzyme, called DDT-dehydrochlorinase, which is developed only by houseflies which carry the gene alleles for DDT-resistance. On the other hand, BHC-resistance has been found to be due partly to increased detoxication (the gamma-BHC being metabolized to pentachlorocyclohexene and dichlorothiophenols) and partly to decreased cuticular penetration. The mechanism of dieldrin- resistance at present remains unknown, but may have some dependence on the fat body. There is good evidence that OP-resistance derives from increased detoxication of the active toxicants, such as paraoxon and maloxon, which are normally produced when the insect absorbs the insecticides such as parathion and malathion.

The resistance problem in Canada is fortunately not so far advanced as in the United States; insects pass through fewer generations per year and insecticides have not been used as extensively as farther south. Nevertheless, cases of DDT-resistance in houseflies were discovered eight to 10 years ago in Ontario, Quebec, the prairie provinces and British Columbia. It is probable that resistance to the DDT and dieldrin groups is now present in most urban and dairy regions. The organophosphorus compounds, particularly malathion, have been in use locally for about five years. It is true that malathion-resistance has developed in Florida, Georgia, Arizona and California, and diazinon-resistance in New Jersey, Denmark, Sweden, Switzerland and Italy; but it is probably not yet present in Canada, although it may soon become evident. Meanwhile Canadians can expect good results from "Diazinon"* sprays, ronnel-impregnated cords and "Dipterex"** baits, each the best of their kind against houseflies.

The resistance of the German cockroach to chlordane is known to exist in most of the northern states of the U.S.A., being especially prevalent and intense in the south. The U.S. Armed Forces Pest Control Board has recorded that it now occurs in the Bahamas, Cuba, Puerto Rico, Trinidad and Panama. It has recently been reported to the National Pest Control Association that chlordane-resistance is present in Toronto, Montreal and Windsor, although supporting data are awaited. We may soon be forced to number the days for which chlordane is expected to remain effective in various parts of the country. In Europe the U.S. Armed Forces have employed DDT with sufficient success against *Blattella,* but they have recently encountered DDT-resistance at Frankfurt, Germany and Orleans, France. The substitution of OP compounds has met with success against resistant roaches in the U.S.A., malathion having been the most widely used but "Diazinon" being the most effective. Resistance to malathion has been developed artificially by selection in the laboratories at Orlando and Blacksburg, but the reports that malathion-resistance has developed in the field at Wilson Dam, Ala. and Jacksonville, Fla. are not supported by valid quantitative evidence. Increased tolerance to pyrethrins has definitely developed in many populations of *Blattella* in the southeastern states. "Dipterex" baits are effective in controlling *Periplaneta americana,* but not the German roach. Mixtures of silica aerogel

*Registered trade name Geigy Chemical Chemical Corp., Ardsley, N. Y.
**Registered trade name Chemagro Corp., New York.

and ammonium silicofluoride (e.g. the formula SG 67) are promising, but a large volume of material is required to achieve control.

The resistance of bedbugs to DDT has fortunately remained of local occurrence in the United States and Europe; BHC-resistance is known in this species in Israel. The northern *Cimex lectularius* does not seem so liable to develop resistance as the tropical bedbug *C. hemipterus*. Resistant bedbugs may be effectively combatted with many OP compounds such as malathion, "Dipterex" and ronnel, the most rapid control being given by diazinon. The common cat and dog fleas of the genus *Ctenocephalides* have developed resistances to DDT and to BHC-dieldrin group in various parts of the U.S.A. and of the world, although there are no tests to prove it.

The pest mosquitoes of the genus *Aedes* developing in the salt marshes of Florida and in the waste irrigation waters of California have developed DDT-resistance, dieldrin-resistance and in some cases OP-resistance. Tests performed five years ago showed no resistance to be present in the *Aedes* of southern Ontario, and it seems unlikely that it will develop in northern Canada where the treated areas are surrounded by such vast untreated populations. The common house mosquito *Culex pipiens* has shown DDT-resistance in Massachusetts and Ohio, and may eventually do so around certain Canadian cities; two other species of *Culex*, namely *C. tarsalis* in California and *C. fatigans* in West Africa, have even developed malathion-resistance as well as dieldrin resistance.

Need for Standard Tests

Many pest control operators using household insecticides may not realize that they have encountered resistance until they have been presented with a crass failure of control. Often it takes a second control failure to convince them or the public-health officer that it was a true case of resistance, and not of unsuitable insecticide formulation or inadequate application. It would appear logical to avoid all this uncertainty and proceed to examine the insects themselves, by submitting a sample of the suspect population to some sort of definite test, preferably a standard one developed for the species concerned. Such a simple test would allow the control failure to be anticipated, and a switch to be made to a remedial insecticide whose efficacy may also be proved by the standard test. Thus we can avoid the serious consequences of a control failure, which are not only loss of face but also a stabilization of resistance.

Fortunately, standard tests are now available for many of the household pest species. One for the German cockroach is described in Technical Information Memorandum No. 3 (TIM-3) of the U.S. Armed Forces Pest Control Board. It is based on exposing 10 roaches to deposits obtained from 2.5 cc of an acetone solution containing 0.1% insecticide in pint jars, and determining the times to knockdown. Thus the median lethal time or LT_{50} may be computed for the suspect population, and compared with that for normal roaches. The National Pest Control Association has urged the use of a similar test based on the use of two per cent insecticide added to blotting paper. Standard methods for cockroaches and also for bedbugs, house flies, body lice, mosquito larvae and adult mosquitoes are fully described not only in TIM-3 but also in a special Supplement to the Interservice Manual on Pest Control put out by the Defense Research Board of Canada. These tests have been or are being standardized by the World Health Organization at Geneva, which is also adding methods for *Xenopsylla* fleas, *Phlebotomus* sandflies and *Simulium* blackflies. For many of these tests special kits are being made available to allow their ready use in the field.

In conclusion, let us take stock of where we are going at the dictates of resistance. In houseflies we have moved from DDT-resistance to dieldrin-resistance and finally in some regions to OP-resistance. This brings us to the point where housefly control has escaped insecticidal techniques and once more must be based on general sanitation. In mosquitoes the three types of resistance have been developed in certain cases, but fortunately nowhere have insecticides yet been forced out of the picture. With cockroaches we are passing from chlordane-resistance to OP compounds to which resistance may eventually develop, or to pyrethrins to which tolerance can develop. Perhaps we could switch to DDT as a second-string insecticide, but it may be expected to induce resistance. As a last resort we can fall back on inorganic chemicals such as sodium fluoride and sodium silicofluoride.

But this is the depressing outlook of a one-way street; is there anything we can do to reverse the development of insect resistance? Curiously enough, all that is needed is a compound which is more toxic to the resistant individuals than to the normal ones. Application of such a compound would preferentially remove the resistants and leave the susceptibles to produce the succeeding generations, and thus it would select for susceptibility rather than resistance. For example it was discovered that a technical preparation of diisopropyl tetrachloroethyl phosphate (DTP) was more toxic to DDT-resistant houseflies than to normal flies, i.e. DTP-resistance was negatively correlated with DDT-resistance. And indeed when DTP was applied for 3 generations it reversed a synthetic DDT-resistant strain to a condition of DDT-susceptibility. Unfortunately, attempts to produce such a material again have not produced a DTP with these peculiar biological properties. A second such negatively-correlated compound was discovered in cetyl bromoacetate (CBA), which killed resistant strains of

(*Turn to Page* 217)

MARKET STUDY REVEALS:

70% of the makers of liquid floor polish use polyethylene in their formulations

A market study just completed by Allied Chemical reveals that approximately 70 per cent of the manufacturers of liquid floor polish use polyethylene in their products today—a growth from less than one per cent three years ago.

Projected market figures show that 85 per cent of the polish companies will use this versatile plastic by the end of 1959, with a proportionate increase in the paste polish market.

"The amazing acceptance of emulsifiable polyethylene by the estimated 40-million-dollar liquid polish market represents one of the most rapid product growth patterns in our experience," commented a spokesman for Allied's Semet-Solvay Petrochemical Division.

The rapid acceptance of polyethylene, which competes in the polish market with vegetable, mineral, and petroleum waxes, is attributable to the product's more stable price and the unique characteristics it imparts to the finished polish.

High gloss, nonslip, and long wearing are some of the consumer advantages cited by the study in accounting for polyethylene acceptance. Polish production advantages, an important area of discussion at the Chemical Specialties Manufacturers' Association meeting in New York, include broader pour temperatures and harder gels with increased solvent content.

Emulsifiable
A-C® Polyethylene

CAN HELP YOU MAKE A PROFITABLE "POLY-POLISH"

This amazing acceptance of emulsifiable polyethylene by the floor polish industry is easily accounted for. Our A-C Polyethylene 629, for example, offers the polish manufacturer:

- Ample supply at stable prices
- Easy formulation of paste or liquid product
- The best possible polish characteristics
- Versatility—can be used in wax or resin formulations

Not only manufacturers of floor polish, but makers of liquid polishes for furniture, automobiles, and shoes find A-C Polyethylene 629 ideal for imparting improved wear, increased water resistance, better antislip properties, and rebuffability. And don't forget, A-C Polyethylene Grade 6 does a fine job in *paste* polish!

Write for literature, free samples. If you are already marketing a "poly-polish" containing A-C Polyethylene 629, why not consider using it to upgrade another of your polish products—or, perhaps, to formulate a profitable new one? If you have not yet joined the "poly-polish parade," it's easy to find out why you should! Technical literature and free samples are readily available. Just write us at the address below!

Allied Chemical

SEMET-SOLVAY PETROCHEMICAL DIVISION
Dept. 570-AT, 40 Rector Street
New York 6, N. Y.

National Distribution • Warehousing in Principal Cities

Nielsen Index on Aerosols

By J. O. Peckham*,
A. C. Nielsen Co.
Chicago

NIELSEN Retail Index services and what they show about aerosol product acceptance, sales and movement in drug and grocery stores, are the subject of this paper. While the Nielsen Retail Index was originally designed for manufacturers of consumer goods sold through retail drug and food outlets, it has found an increasing use with some of the people who supply packaging materials and raw materials to these manufacturers. In other words, some of the trends we measure for Lever Brothers, Procter & Gamble, Colgate, General Foods, and Johnson & Johnson may have some direct application to your own business as suppliers. In addition, many of you will be interested in the application of the Nielsen Retail Index service as a marketing tool.

Before we get into our data on aerosol product acceptance, sales and movement through drug and grocery stores, we shall describe the Nielsen Index service itself.

In 1933, after ten years of experimentation, the A. C. Nielsen Company inaugurated a new type of marketing research now known as the Nielsen Food-Drug Index. Applied in 1933 to the drug industry, the venture proved such an immediate and substantial success that the same principles were extended in 1934 to the grocery field. The staff of the Nielsen Company has expanded from 55 full-time emyloyees in 1934 to over 3,300 today in the United States and eleven foreign countries.

Nielsen Drug-Food Index services in the United States furnish continuous, factual marketing data on over 3,500 items sold through drug, grocery, delicatessen, and country general stores. Today 47 of the 50 leading advertisers in the Food-Drug field are Nielsen clients.

Some of these companies use the service on only a single product, while others employ it on two or more subjects; and one manufacturer has 61 different contracts with us in eight countries! Most companies pay from $25,000 to $100,000 for our services every year.

Why is there a need for this type of research? In drug, grocery, and many other lines, the manufacturer does not sell directly to the consumer, but sells to chain and whole-sale warehouses, which in turn ship to chain and independent retail stores. These retailers then sell to the ultimate consumer. Merchandise inventories in the chain and wholesale warehouses and in the retail stores are so great, and they fluctuate so widely from month to month (often for reasons beyond the manufacturer's control), that the amount of orders received or goods shipped at the factory in any given month is usually quite different from the amount of goods moved into the hands of consumers across retail counters.

*Paper presented at 46th annual meeting, Chemical Specialties Manufacturers Association, Washington, D. C., Dec. 8, 1959.

Chart 1.

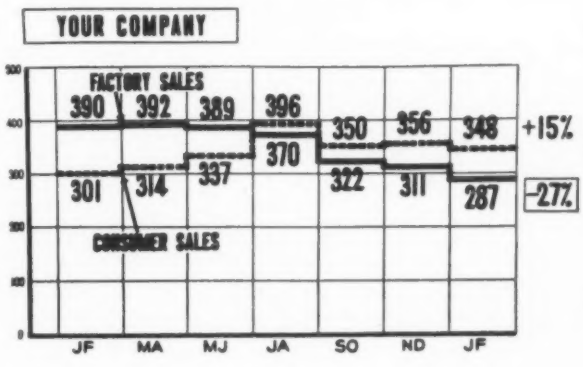
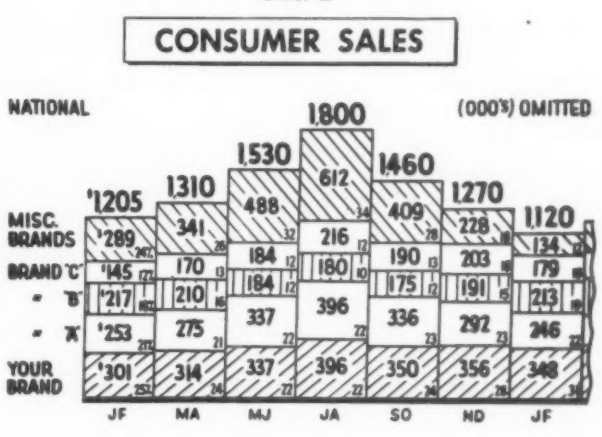


Chart 2.



It is vitally important to know *consumer* sales, for the manufacturer may be spending money for various advertising and merchandising efforts to maintain or increase the flow of his goods at the point of consumption. When a manufacturer makes a definite change in any phase of his marketing effort, his factory sales for the next few months will not ordinarily give a true indication of the extent to which the change affects his consumer sales. What he really needs is a consumer sales curve. (See Chart 1). The contrast between factory sales and consumer sales as shown on this chart is by no means exaggerated; in fact, far greater contrasts are very common.

If, addition to his consumer sales growth for the entire country, the manufacturer had a separate curve, in the same form, for each territory, each county size range, each store-type and size, he could learn accurately and promptly the result of every move he made. And certainly it would be ideal to have a similar set of consumer sales curves for each *competitor*. By watching the true result of every competitive move, experience as to profitable and unprofitable methods can be accumulated much more rapidly than would be possible if the manufacturer had to rely solely on his own experience.

The Nielsen method determines the sales of the client's competitors just as easily as it measures the sales of his own products. By knowing his competitor's *consumer* sales, the manufacturer can judge the effectiveness of every move made by his competitors as well as his own relative progress. (See Chart 2)

Knowing the consumer sales, the manufacturer, as represented in Chart 1, undoubtedly avoided making some serious errors of perhaps cutting back production or withdrawing advertising expenditures. More than that, Chart 2 tells him that even though he has done well both volumewise and competitively within the over-all market from the January-February period of one year to the January-February period of the following year, there is a lot more he can do to improve his volume during the summer months. The chart shows that he actually loses competitively to other brands as the market reaches its seasonal peak.

Chart 3 provides a rather complete list of the type of data secured every 60 days in food stores as well as in drug outlets. All of such data can not only be compared with competitors' producing nationally but can be broken by the many market sections indicated in the lower portion of the chart, thereby pinpointing weaknesses (as well as strengths), from period to period.

COMPLETE LIST OF DATA SECURED
Every 60 Days IN DRUG STORES

1. **SALES to CONSUMERS**
2. **PURCHASES by RETAILERS**
3. **RETAIL INVENTORIES**
4. **MONTHS' SUPPLY**
5. **DISTRIBUTION**
6. **OUT-OF-STOCK**
7. **PRICES** (Wholesale and Retail)
8. **RETAIL GROSS PROFIT**
9. **DIRECT vs. WHOLESALE PURCHASES**
10. **AVERAGE ORDER SIZE**
11. **RE-ORDERS**
12. **DEALER PUSH** (Displays, Adv, Comb, Specials, etc.)
13. **TOTAL SALES** (All Commodities)

Broken Down by:

BRANDS	TERRITORIES	YOUR OWN TERR.		COUNTIES	STORES		PKG. SIZE	PROD. TYPE
YOURS	NEW ENG.	1	10	METRO. N.Y.	TYPE	SIZE	SMALL	X
COMPETITORS A	METRO. N.Y.	2	11	METRO. CHGO.	CHAIN	LARGE		
COMPETITORS B	MID-ATLANTIC	3	12	OTHER METRO. (9 NEXT LARGEST MKTS.)		MEDIUM	MEDIUM	Y
COMPETITORS C	EAST CENTRAL	4	13	B				
COMPETITORS D	METRO. CHGO.	5	14		INDEP.		LARGE	Z
ALL OTHERS	WEST CENT.	6	15	C		SMALL		
TOTAL	SOUTHEAST	7	16					
	SOUTHWEST	8	17	RURAL				
	PACIFIC	9	18					

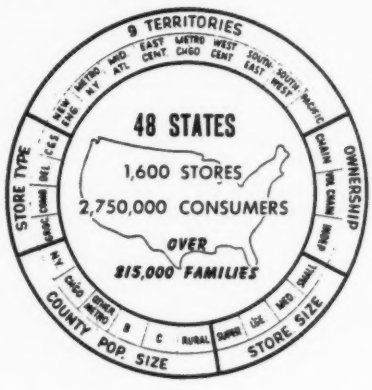
Chart 3.

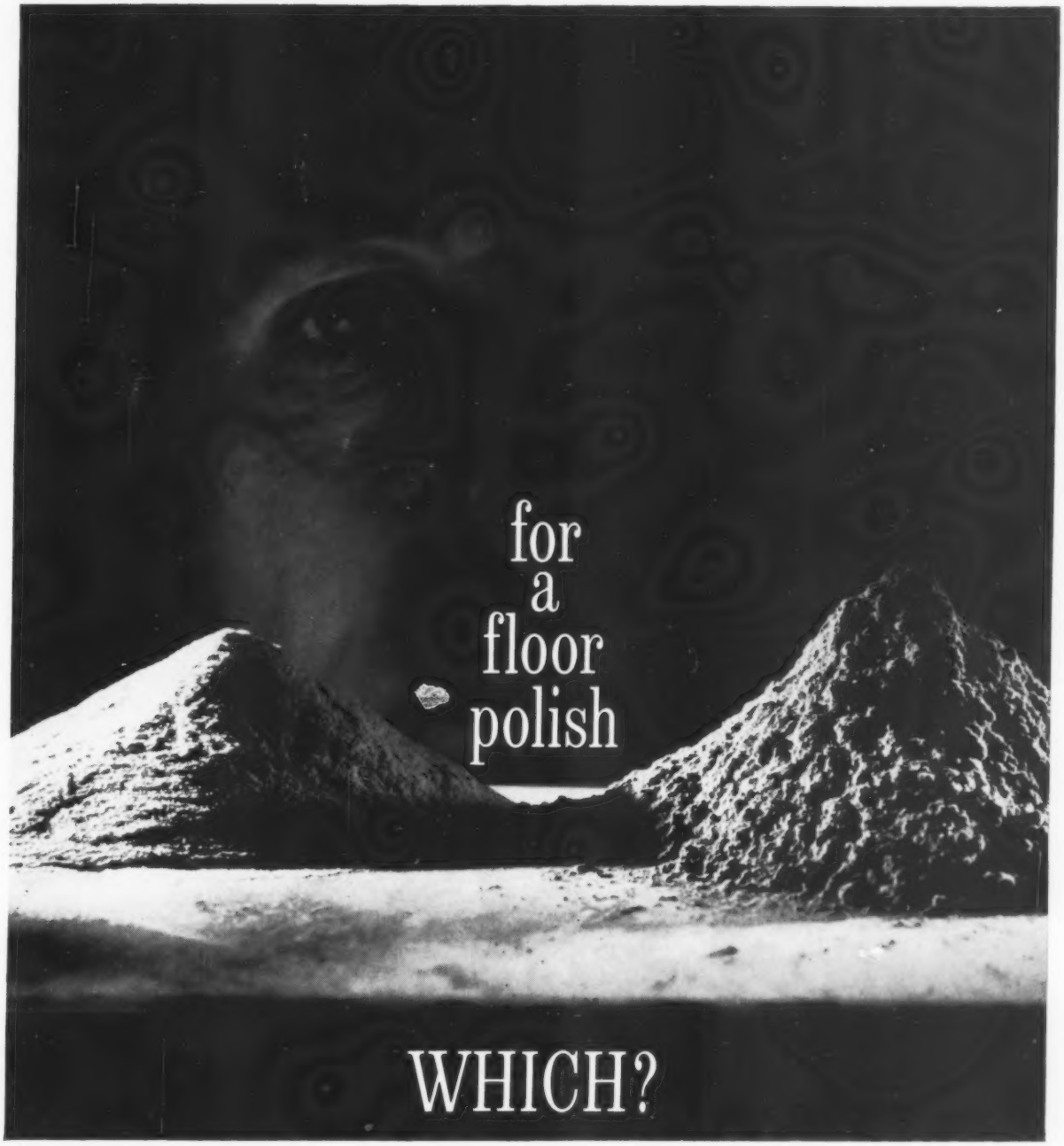
The United States Census of Distribution is the principal guide in selecting Nielsen panel stores in this country. Chart 4 illustrates the over-all store selection method employed in the food field. Each territory, each county population range, each store size, and each type is represented in the cross-section and projected in its proper proportion. The U. S. food stores are located in 478 countries selected on a probability basis. A contract is made with each store, and with the headquarters of each chain organization, under the terms of which Nielsen auditors have the privilege of taking inventories and auditing the invoices for all goods coming into the store. Total all-commodity volumes are obtained. Cooperating chains and independents are compensated with cash and general marketing information.

The consumer sales figures obtained in this manner are expanded to a total for the entire country. The care used in selecting and auditing stores has resulted in sales information with national probable errors generally ranging from ± 1.5 per cent to ± 3.0 per cent This high degree of accuracy is readily understandable when it is realized that the Nielsen Food

(*Turn to Page* 99)

Chart 4. Food store selection. Based on U.S. Census of Distribution and Nielsen continuing studies.





This is four ounces of shellac. It is made by a scale insect, *Laccifer lacca*, that lives on the twigs of certain trees native to India and the East Indies.

If sunshine, wind, and rain are just right, *Laccifer lacca* thrives and there's plenty of shellac for floor polish.

But when nature's unpredictable smile turns to a frown, things aren't so good. The price goes up. Quality may go down. Both ways, you pay the difference.

This is four ounces of an ammonia-soluble resin. It is made in a factory in North Tonawanda, N. Y., and stocked in warehouses around the country.

A lot of highly perceptive gentlemen use it in place of shellac and other natural gums to promote leveling in emulsion floor polish. These men tell us they get better water resistance, better hardness, better stability, and better uniformity with this resin than with nature's materials.

They save money, too. The resin costs less than shellac. And its cost is more predictable. Resin prices haven't fluctuated in five years.

Your Durez man can help you apply Durez resins in your emulsion floor polish formulations. Call him in now, or write us for further information.

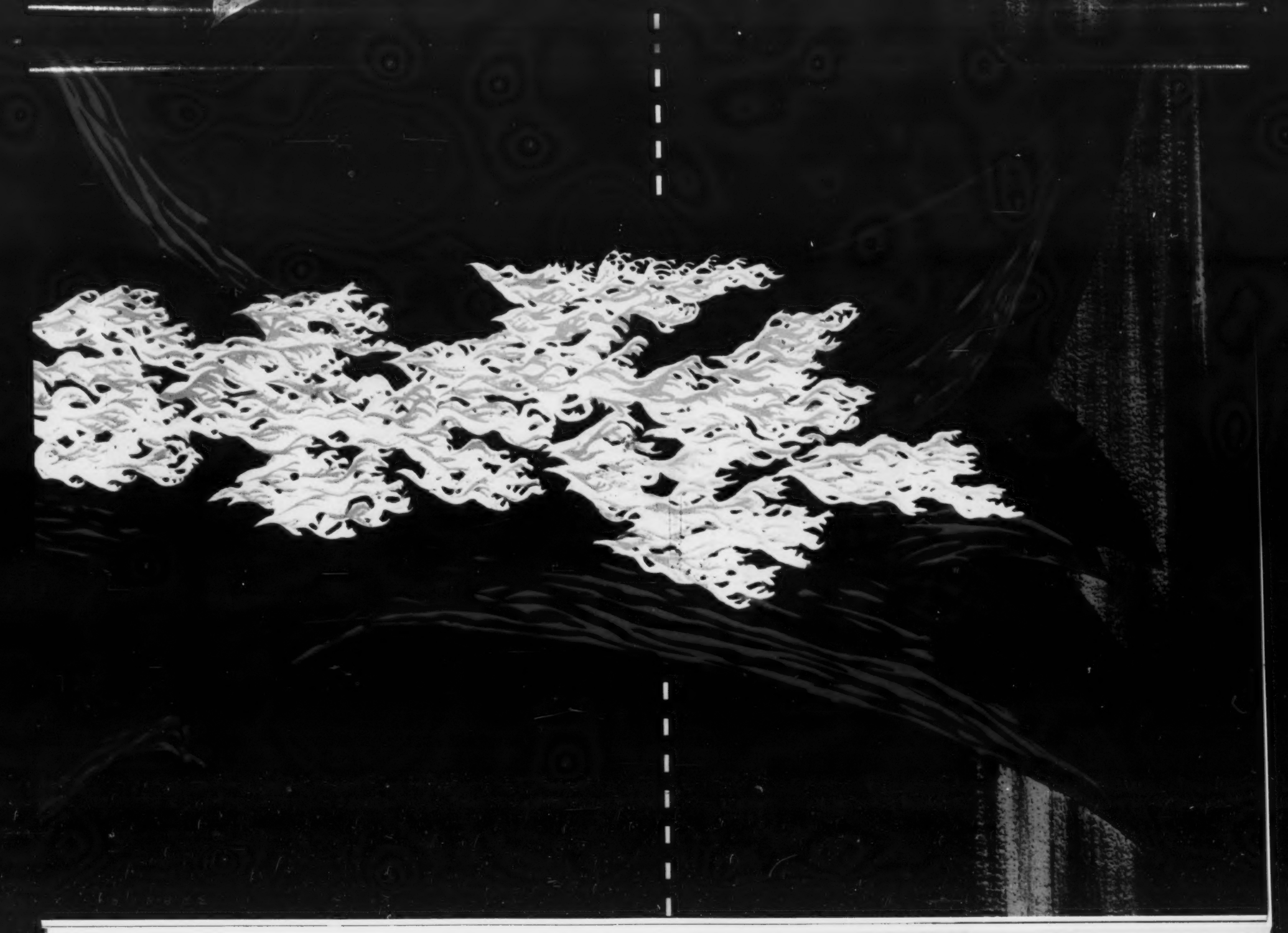
If you prefer to buy fusions of resins and wax, you can get them, made with Durez resins, from many specialty processors.

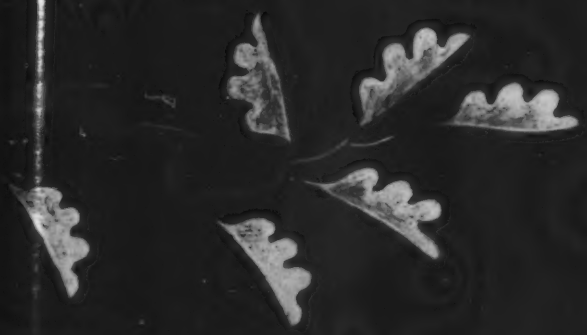
DUREZ PLASTICS DIVISION

401 WALCK ROAD, NORTH TONAWANDA, N. Y.

HOOKER CHEMICAL CORPORATION

HOOKER CHEMICALS PLASTICS





OAKMOSS

- - - EXTRACT GREEN »STANDARD«

DRAGOCO INC.

NEW kid glove treatment helps our hottest bomber keep cool

Special polish with low-abrasive Celite guards the B-58's sensitive skin

Now J-M Celite* has a national defense assignment—helping our newest A-bomber, the Convair B-58 "Hustler," run at supersonic speeds!

Everything about this high-performance aircraft, right down to its gleaming metal skin, says "speed." This high-luster, low-friction surface has been called one of the most vital achievements in modern aircraft development.

To maintain this precision skin—without damaging or scratching the special metal alloys—Convair has specified a new polish-cleaner called *Once!*.† The only abrasive in *Once!* is Snow-Floss, a unique polishing grade of Celite. Because of the porous, thin-walled structure of its diatomite particles, *Snow-Floss never scratches.* Each particle collapses like a microscopic buffer, removing foreign matter and maintaining a precision smoothness that lasts.

Snow-Floss provides easier application and rub-off, too. Highly absorptive, it soaks up and retains dirt and grease films that would otherwise resist rub-off and reduce sheen. This explains why it has gained acceptance as the major abrasive in all types of polishes.

Snow-Floss and the other Johns-Manville Celite grades produced for polishes are carefully controlled from bag to bag. Find out which fits your needs . . . call your nearby Celite engineer or write direct. Johns-Manville, Box 14, New York 16, N.Y. In Canada, Port Credit, Ont.

*Celite is Johns-Manville's registered trade mark for its diatomaceous silica products.

†*Once!* is a registered trade mark of the American Silicone Company, Englewood, Colorado.

JOHNS-MANVILLE

OFF THE SHELF

...the sensational new six point Chlordane plan for extra insecticide profits!

1 FREE GIFTS FOR DISPLAYS
Not a contest! Every dealer who displays Chlordane and sends in a snapshot gets a choice of free gifts.

2 CASH AWARDS
Five big cash prizes totaling $1250.00 for dealers who run a Chlordane "Show and Sell" store promotion.

3 TRAFFIC BUILDING POINT OF SALE MATERIAL!
Streamers, counter cards and other promotional pieces that make it easy and profitable to display Chlordane.

4 MERCHANDISING AWARD CERTIFICATES
Awarded to dealers who participate in all phases of the "Off The Shelf" program. Beautifully done.

5 MONTHLY INFORMATION SERVICE
A combination technical and selling news service, designed to help you and your clerks sell more insecticides.

6 MORE CONSUMER ADVERTISING
The 1960 Chlordane consumer advertising program will appear in more magazines, newspapers, and markets than ever before.

FORMULATORS AND DISTRIBUTORS!

MAKE SURE YOUR SALESMEN AND DEALERS KNOW ABOUT THIS PROGRAM!

MAIL COUPON TODAY FOR COMPLETE INFORMATION!

VELSICOL

VELSICOL CHEMICAL CORPORATION
330 East Grand Avenue, Chicago 11, Illinois
International Representative: Velsicol International Corp., C.A.
P.O. Box 1687 Nassau, Bahamas, B W I. SCS-10

Please send details of the new 1960 CHLORDANE "OFF THE SHELF" program for my dealers! Also send information on the special new Chlordane incentive program for formulator and distributor salesmen.

Name_____

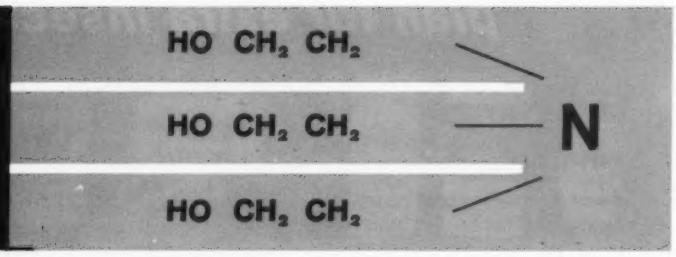
Store_____

Address_____

City_____

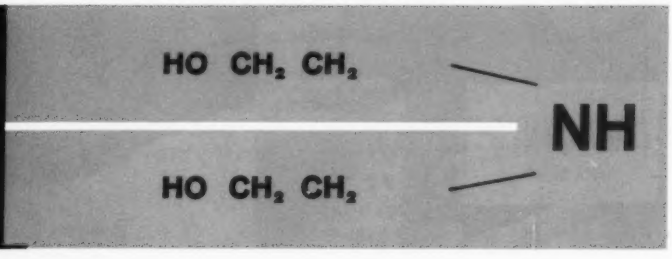
IF YOU USE

tri



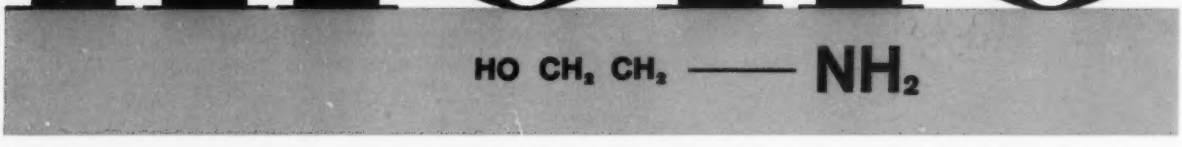
OR

di



DON'T OVERLOOK

mono



It won't hold for everybody, but in some applications where di- or triethanolamine is being used, there are positive advantages to be gained from switching to mono-. For example, MEA can frequently be used advantageously as the amine in amine soap emulsifiers for such products as cutting oils, weedicides, waxes and buffing compounds. In some instances total amine required is reduced to the extent that cost is reduced. In some cases mixtures of MEA and TEA are better than either alone.

MEA may improve performance while TEA maintains a lower pH.

If your product or process now utilizes DEA or TEA, it may pay you to evaluate MEA. Allied Chemical makes all three, and will give you technical suggestions that may help you reduce costs, improve efficiency or make a better product. Write for any technical assistance you need.

For specifications and local offices, see our insert in Chemical Materials Catalog, pages 475-482 and in Chemical Week Buyers Guide, pages 37-44.

BASIC TO AMERICA'S PROGRESS

Allied Chemical

NITROGEN DIVISION

Dept. EA 8-27-7, 40 Rector St., New York 6, N. Y.

2819

(*Continued from Page* 92)

Index stores in the United States serve the needs of over 2,000,000 consumers, or more than 500,000 family units. The basic reason for samples this large, and this well dispersed, is that our clients need accuracy not only for national totals but for all of the subdivisions listed on Chart 3. For acceptably accurate data on a national basis alone, we could reduce the size of our sample to a fraction of its present dimensions. But the greatest value of the information lies in the trends of sales, and factors affecting sales, by territories, community sizes, and store types—and it is for this purpose that our samples embrace the buying of so many people.

The usual range employed in consumer surveys seldom exceeds 10,000 and consumers can rarely give reliable data on quantities consumed. In stores, documentary evidence in the forms of inventories, invoices, etc. permit auditing the actual quantities sold. Chart 5 illustrates the principles employed in determining consumer sales and other vital marketing data in Nielsen stores. Note that the dealer's memory is not relied upon for any sales information. He merely saves every invoice.

Store auditing, while simple in principle, is exceedingly complex in actual practice. Nielsen auditors must be familiar with all the methods of buying, selling, and invoicing every type of drug and grocery product. A highly trained, permanent, full-time staff is used for this work as well as for every other Nielsen Index operation. The average Nielsen field man, of which there are approximately 275 in the United States, must undergo a minimum six-month training period at full salary in our Chicago training school before he is ready to take on a field route of his own. For the next six months or so he is closely supervised before being allowed to carry on the work unassisted. Even then, during each and every monthly field trip a supervisor visits him for at least a day

PRINCIPLES *of* NIELSEN INDEX AUDITING

"BLANK" BRAND TOOTH PASTE (50¢ SIZE) IN JOHN DOE'S DRUG STORE FOR JAN.-FEB. PERIOD

		NO. OF ORDERS	PACKAGES	VALUE
INVENTORY	JANUARY 2 *(PRIOR AUDIT)*		114	
	MARCH 1 *(TODAY)*		93	
	CHANGE		21	
PURCHASES	FROM MANUFACTURER	1	24	$ 7.10
	FROM WHOLESALER	10	62	19.00
	TOTAL		86	$26.10
CONSUMER SALES	PACKAGES		107	
	PRICE PER PACKAGE			.41
	DOLLARS TOTAL			$43.87
STORE PROMOTION	WINDOW DISPLAY	YES ☒		NO ☐
	INSIDE ADV. DISPLAY	☐		☒
	INSIDE GOODS DISPLAY	☒		☐
	LOCAL ADV. BY STORE	☒		☐
	SPECIAL PRICE SALE	☒		☐
	AT WHAT PRICE	$.39		

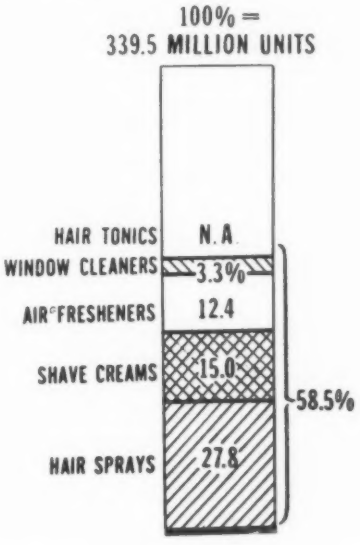
Chart 5.

or two to make certain that he, as well as the other men in the supervisor's territory, are doing a satisfactory job.

We shall now turn to the data prepared on the consumer movement of various aerosol products through food and drug stores. Being a commercial organization we measure trends of only those specific product groups where we have a paying client. In the field of aerosol product this means

Chart 6.

How important are the aerosols measured by the Nielsen survey?



hair sprays, shave creams, air fresheners, window cleaners, and hair tonics, leaving out such important categories as insecticides, paints, colognes, and perfumes. Even so, Chart 6 shows us that according to the C. S. M. A. survey of 1957, these five categories accounted for 58.5 per cent of total aerosol units filled, with hair sprays accounting for 27.8 per cent, shave creams 15.0 per cent, air fresheners or room deodorants (as they are termed in the survey) 12.4 per cent, window or glass cleaners 3.3 per cent and hair tonics not available. These product groups thus represent a pretty sizable proportion of the aerosol business, and hence some of the characteristics of this group of products should have an important bearing on the aerosol business as a whole.

Chart 7 answers the question "to what extent have aerosols penetrated each of these five major product groups in the food/drug field?" Hair sprays are virtually 100 per cent closely followed by air freshners where aerosols make up 72.7 per cent of unit sales, shave creams where aerosols represent 63.2 per cent and then trailing off to window cleaners at 19.9 per cent and hair tonics at only 1.2 per cent. This is the most re-

Give your aerosol insecticides EXTRA SALES APPEAL with Givaudan fragrances

Today's modern trend in consumer preferences demands a pleasant as well as functional insecticide and mothicide. A Givaudan fragrance — custom-made to fit your particular needs — will give your products that *extra* sales appeal that is so important.

As the largest producer of perfume materials in America, Givaudan maintains special laboratories devoted exclusively to the development of new and finer aerosol fragrances and the solution of problems in aerosol perfuming.

Our staff will gladly recommend, adapt or custom-tailor a fragrance that will give your aerosol insecticides a fresh, distinctive appeal in this fast-growing, highly competitive market.

GIVAUDAN

GIVAUDAN-DELAWANNA, INC.
321 West 44th Street, New York 36, N. Y.

cent information available as of mid-summer 1959.

Even though aerosols have already secured a substantial share of the air freshener and shave cream markets, there is still room for substantial sales increases of aerosols in these categories as the market itself expands and, of course, there is ample room for the development of aerosols in the window cleaner and hair tonic fields even without the benefit of market expansion. We'll have more to say about this a little later. Although aerosols are relatively new, they have already achieved widespread geographical use as shown on Chart 9.

The right-hand bar of Chart 9 tells the relative importance of all grocery and drug store sales (all commodities) in each of the nine standard Nielsen areas. For example, New England accounts for 7.0 per cent of food/drug sales, Metropolitan New York 7.6 per cent, and so on down to the Pacific Coast where 15.5 per cent of the food/drug business is located. Note how closely this corresponds to a similar breakdown of the five measured aerosol product groups. For example, New England accounts for 6.8 per cent of aerosol sales as compared with 7.0 per cent of all commodities, while on the Pacific Coast the figures are 15.5 per cent

(*Turn to Page* 111)

Chart 7 (top)
Chart 9 (below)

TO WHAT EXTENT HAVE AEROSOLS PENETRATED EACH OF THESE FIVE MEASURED PRODUCT GROUPS IN THE FOOD - DRUG FIELD?

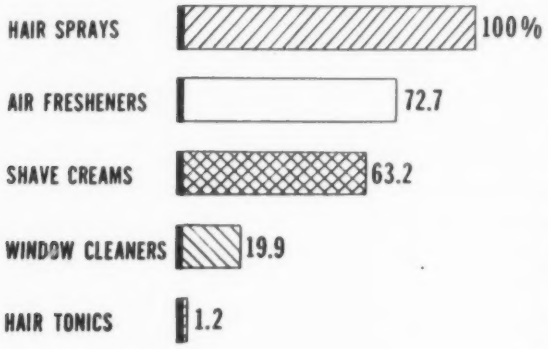
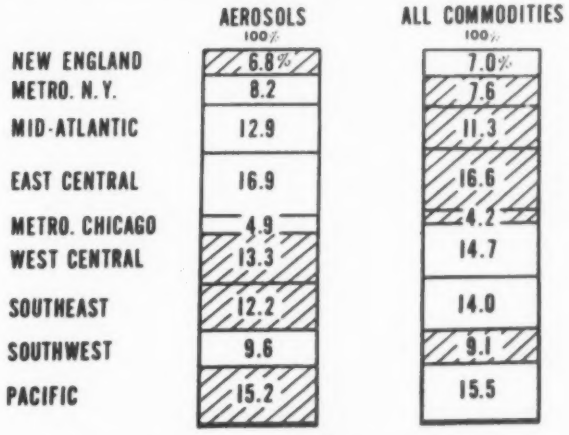
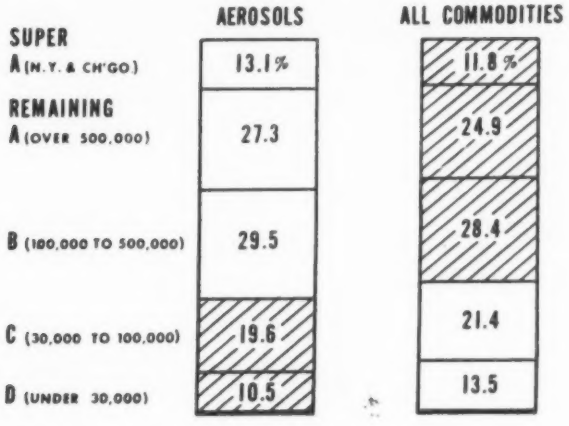


Chart 8 (top)
Chart 10 (below)

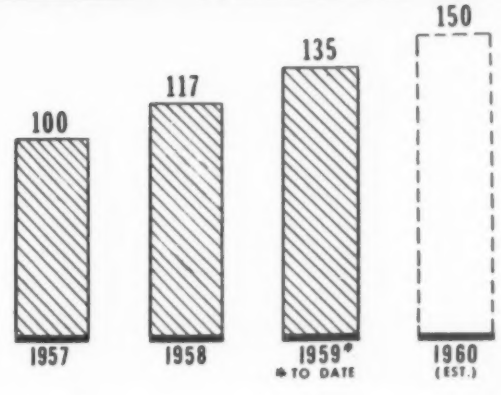
HOW DO FOOD/DRUG CONSUMER SALES OF AEROSOLS IN THESE FIVE MEASURED PRODUCT GROUPS DIVIDE BY GEOGRAPHIC AREA?



HOW DO FOOD/DRUG CONSUMER SALES OF AEROSOLS IN THESE FIVE MEASURED PRODUCT GROUPS DIVIDE BY SIZE OF COMMUNITY?



HOW RAPIDLY ARE FOOD/DRUG CONSUMER SALES OF AEROSOLS EXPANDING IN THESE FIVE MEASURED PRODUCT GROUPS?



EPOLENE "E"

Waxes Bright When Others Wane

It's no mere play on words. Tests show that the gloss of Epolene based floor polishes actually increases with wear. On asphalt tile, for instance, the gloss of a typical Epolene polish rated 50%* immediately after application – an excellent rating for any floor polish. Following a normal period of wear and rebuffing, however, its gloss had increased to 65%.

Readily emulsifiable, Epolene "E" is supplied in small, rice size pellets – convenient to handle and easy to process. When it is incorporated into polishes it provides excellent durability, slip resistance and resistance to water spotting. Non-discoloring, Epolene "E" also imparts an unusual and lasting depth of color to floor surfaces.

To assure the superior performance of its polyethylene waxes, Eastman maintains a precise and rigid system of controls throughout the manufacturing process. Polish manufacturers can thus standardize on formulations and procedures with complete confidence in batch to batch uniformity.

To help manufacturers in taking full advantage of the outstanding properties of Epolene "E", Eastman maintains an extensive technical service laboratory in Kingsport, Tenn. Through this laboratory polish manufacturers are offered expert assistance in formulations and manufacturing techniques.

For samples and further information, write Eastman Chemical Products, Inc., subsidiary of Eastman Kodak Company, Chemicals Division, Kingsport, Tennessee.

**With a 60° Gardner Glossmeter*

Epolene
EASTMAN POLYETHYLENE WAXES

SALES OFFICES: Eastman Chemical Products, Inc., Kingsport, Tennessee; Atlanta; Chicago; Cincinnati; Cleveland; Framingham, Mass.; Greensboro, N. C.; Houston; New York City; St. Louis. **West Coast: Wilson Meyer Co.,** San Francisco; Los Angeles; Portland; Salt Lake City; Seattle.

New developments in

Sanitizers and Disinfectants

By Arnold Lada*,
Chief of Technical Service,
Onyx Oil & Chemical Co.
Jersey City, N. J.

A TREMENDOUS impetus has been given to the overall sales of both multi-purpose and straight germicidal products by the outbreak of antibiotic resistant staphylococcus in hospitals and other institutions. These resistant strains no longer respond to the action of many well known antibiotics and represent a constant threat in causing serious infections and increased mortality rates. The awareness that several commercially available germicides are effective against resistant staphylococcus has not only stimulated hospital sales, but has proved quite useful in their merchandising for general industrial maintenance, particularly since they can be formulated to prepare one step cleaner-disinfectant products.

Before discussing the various types of germicides, it would seem worthwhile to review the labeling and claims that can be made for these materials.

Considerable confusion has arisen and, in some cases, has been inadvertently promulgated, by the various descriptive terms and bacteriological tests employed to substantiate the efficacy of a germicide. The Department of Agriculture, the government agency responsible for administering the Economic Poisons Act in the United States, sharply distinguishes between chemicals that claim to be sterilizers, disinfectants, sanitizers, and bacteriostats.

Sterilization is the total destruction of all pathogenic and non-pathogenic organisms including spore forming species. At the present, there are no chemicals commonly used for daily maintenance that will sterilize inanimate surfaces, such as floors and walls. Beta-propiolactone and ethylene oxide in their vapor phase can be used as sterilizers, but must of necessity be employed in closed systems with all personnel wearing protective equipment including gas masks. Both products, incidentally, are hydrolyzed and rendered inactive in aqueous systems. Disinfectants, the next strongest claim, must kill all bacteria except resistant spore-forming species. Sanitizers must reduce bacterial counts to safe levels, as may be judged by public health requirements. Bacteriostats must prevent the growth of bacteria.

Disinfection, then, is the most rigorous claim attainable for products designed for general use in institutional maintenance.

Unfortunately, the different types of bacteriological screening tests available have, in some instances, been used on labels or in advertising literature in an attempt to substantiate germicidal activity by methods that are either not applicable nor acceptable.

Phenol Coefficients

Phenol coefficients have been employed for many years as a means of indicating the germicidal potency of a product. Initially developed in 1903, the test has gone through several modifications and evolved as an official test procedure initially by the Food & Drug Administration and finally by the Association of Official Agricultural Chemists.

The phenol coefficient is simply a method of relating the potency of the product in question to phenol (carbolic acid). For example, a product having a phenol coefficient of 6 means that the concentration of the product, as it exists, is six times more potent than phenol. The phenol coefficient is of value as a comparative measuring device of the general potency factor, and can also be used to compare the potency of a product before and after formulation changes are made. In order to determine if a given germicide is impaired or inactivated in its efficiency by the addition of an ingredient in a formulation, a phenol coefficient test can be made on the germicide itself, and on the entire finished formulation. Phenol coefficients are not an absolute index of biological efficiency. When comparisons are made they should be done:

(1) On the basis of a series of side by side testing of the compound in question, and/or

(2) On the basis of exactly the same method of computing the minimum phenol coefficient. Phenol coefficients based on statistically derived minimum claims involving many replicate determinations are considerably more valid than an average determination.

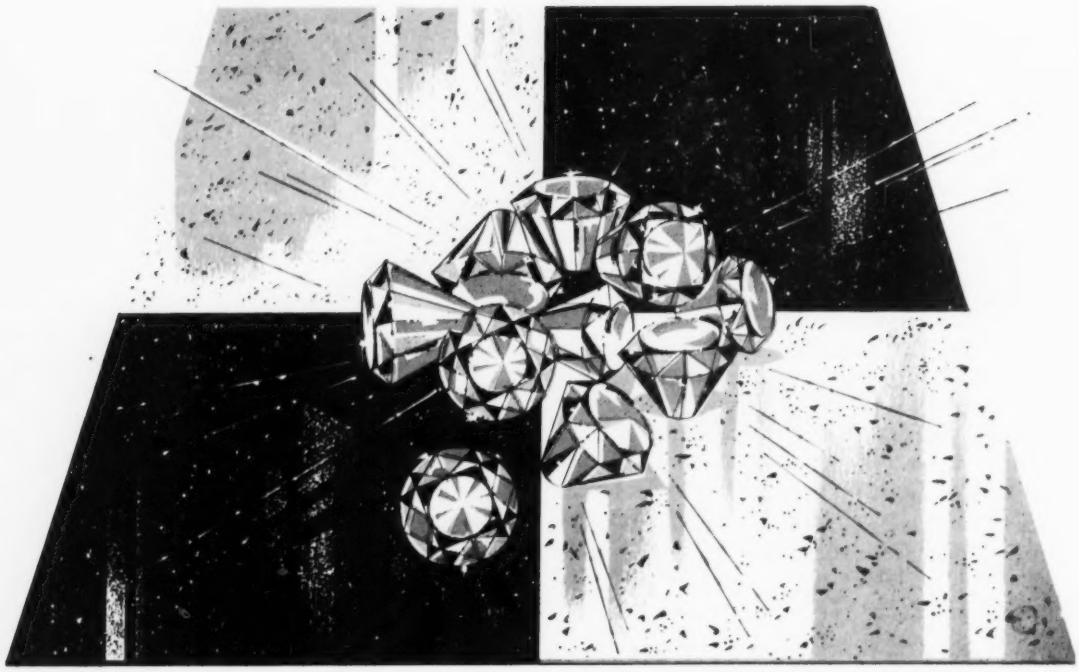
Chemical disinfectant levels were for some time arrived at by recommending a dilution of twenty times their phenol coefficients.

It became apparent that the

*Paper presented during the second annual meeting, Canadian Manufacturers of Chemical Specialties, Nov. 4, 1959, Royal York Hotel, Toronto.

Glitter 2700

VINYL-ACRYLIC RESIN LATEX



NEW KIND OF FLOOR POLISH BASE

GLITTER 2700 takes a fresh approach to resin floor polishes. It forms no resin film. Instead, a glittering, sparkling cushion of resin particles protects floors. Hard. Scuff resistant. Long wearing. Firmly held in a film of easy-to-remove wax.

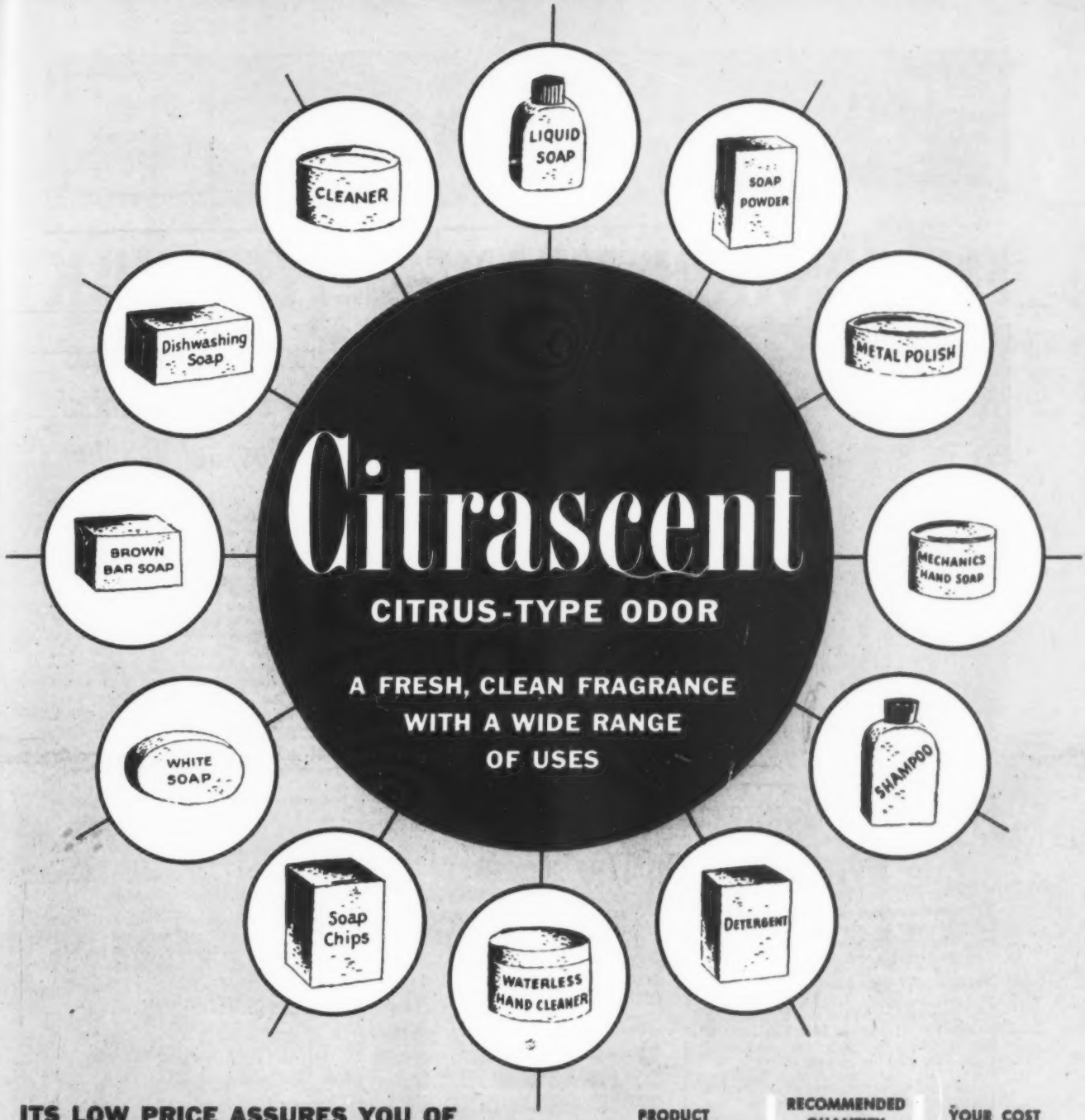
GLITTER 2700 formulations give high gloss of 17 to 19 with one coat. Approximately 32 with two coats. Nonyellowing. Excellent water resistance. Unusually stable, even to freezing and thawing.

GLITTER 2700 is recommended for both self polishing and rebuffable formulations. It is now in commercial production. We'd be pleased to demonstrate its advantages in your products. Either write or call your nearest National office.

National RESINS

NATIONAL STARCH and CHEMICAL CORPORATION

750 Third Avenue, New York 17
3641 So. Washtenaw Avenue, Chicago 32
735 Battery Street, San Francisco 11



Citrascent

CITRUS-TYPE ODOR

A FRESH, CLEAN FRAGRANCE WITH A WIDE RANGE OF USES

ITS LOW PRICE ASSURES YOU OF TOP ODOR VALUE AT MINIMUM COST

This fine reodorant saves you money and gives your products a popular, distinctive fragrance that has definite *sales appeal!*

CITRASCENT has a truly lasting fragrance—with more "lift"... it is uniform and stable in odor value and provides complete freedom from discoloration in soaps.

Notice how amazingly little it costs to reodorize your products with CITRASCENT.

PRODUCT	RECOMMENDED QUANTITY	YOUR COST
Liquid Soaps Liquid Detergents Insecticide Sprays Shampoos	¼ oz. to 1 gallon	3½¢ gallon
Cake Soap Powdered Soap Powdered Detergents Waterless Hand Cleaners General Purpose Cleaners	4 oz. to 100 lbs.	½¢ pound

Order a trial quantity today!

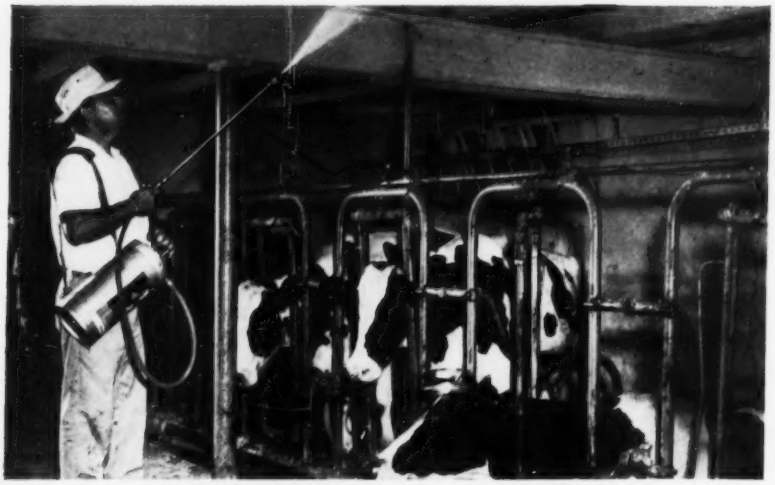
AROMATIC PRODUCTS, Incorporated • 235 FOURTH AVENUE • NEW YORK, 3

CHICAGO • DALLAS • MEMPHIS • PITTSBURGH • LOS ANGELES • BOSTON • FORT LAUDERDALE

Fairfield Facts

DAIRY EDITION ★ ★ ★

FLY CONTROL MEANS BETTER MILK



ARE THESE COWS PROTECTED? Increased insect resistance in 1960 will make many once-successful insecticide formulations obsolete, emphasize researchers at Fairfield Chemicals, Food Machinery and Chemical Corp. Use of maximum-effectiveness insecticides containing Pyrenone assure animals of complete protection and prevent loss of farm income due to drop in milk quality.

Flies Find Dining Is Dangerous When Pyrenone Is On The Menu

Flies are finding it more dangerous lately to attack grazing animals. Not only is it proving uncomfortable for the flies, but it's becoming downright fatal.

Farm use of insecticide and repellent combinations like Pyrenone* and Crag Fly Repellent† afford additional, dual protection to grazing animals... protection that kills flies on contact and repels future attacks for several days.

Field tests show that sprays only utilizing repellents have limited value. Flies, gnats and mosquitoes stay in the area, bothering animals and attacking non-treated stock. When grazing cattle are annoyed by insects, quantity and quality of milk yields suffer.

Versatile Pyrenone and Crag Fly Repellent combinations are available as oil sprays and emulsions. Highly effective, they are accepted under the Miller Bill on a "non-residue" basis. No trace of approved formulations appears in milk or meat of treated animals. Send for free technical bulletin No. F-1.

Copies of the following booklets may be obtained from local Fairfield representatives or by writing to Fairfield Chemicals, Food Machinery and Chemical Corporation, 441 Lexington Avenue, New York 17, New York.

☐ DAIRY, LIVESTOCK AND CATTLE SPRAYS AND DUSTS — Free booklet describing Pyrenone formulations for sprays, emulsifiable concentrates, wettable powders, fogging sprays, Pyrenone and repellents, Pyrenone aerosols, cow bombs.

☐ TECHNICAL BULLETIN No. F-1 — Free bulletin describing Pyrenone and Crag Fly Repellent formulations.

☐ FAIRFIELD FACTS FINDER—a new, 20-page comprehensive guide and unique, revolving calculator covering Pyrenone base formulations for dairy, garden, home and industrial sprays, aerosols and powders as well as an index of insects and pests. Price—$1.00.

*U.S. Pat. Off. FMC †U.S. Pat. Off. U.C.C.

Putting Ideas to Work

FOOD MACHINERY AND CHEMICAL CORPORATION

Fairfield Chemicals

Sales Headquarters

441 LEXINGTON AVENUE, NEW YORK 17, N.Y.

Branches in principal cities. In Canada: Natural Products Corporation, Montreal and Toronto.

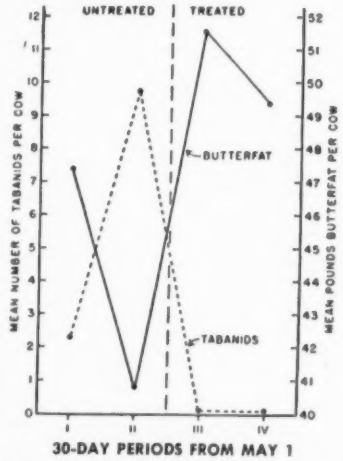
Pyrenone Formulations Keep Cows Contented As Flies Get Tougher

Formulators whose insecticides offer Pyrenone's maximum protection will get a greater share of farm business during 1960. Field tests prove that maximum control of biting flies means better milk—hence, more money for the farmer.

With flies becoming harder to kill every year, dairymen can't risk insecticides that lose their "punch." Entomologists reveal that in some areas last year, they changed formulations two and three times to maintain fly control. Non-toxic Pyrenone appeared in virtually every final successful insecticide.

Milk quality suffers when biting fly control is below maximum. In Illinois, during a May-June span, twelve herds not protected by an effective insecticide lost 13 to 14.8 percent in butterfat. A 1-percent piperonyl butoxide and 0.1 percent pyrethrins Pyrenone emulsion used twice a week in amounts of 10 to 15 ounces per cow brought butterfat back to normal in a month.

Effective Pyrenone formulations for sprays, emulsions, powders, etc., are included in a free booklet, "Dairy, Livestock and Cattle Sprays, and Dusts," available upon request.



Mean number of tabanids and mean pounds butterfat produced per animal during four successive 30-day periods for seven animals in similar stages of lactation. Treatments started the last day of the second 30-day period.

Phenol Coefficient Method was limited and discriminated against many non-phenol type of germicides. Moreover, the recommended 20 times use-dilution did not apply for highly active disinfectants such as the quaternary ammonium compounds.

On this basis, a carrier type test was developed by the United States Department of Agriculture known as the Use Dilution Confirmation Test. This has been adopted as the sole recognized bacteriological test for determining the disinfectant level of a given material. Phenol Coefficients, Germicidal Capacity Tests, and Percent Survival Tests, cannot be used in any way to make a valid disinfection claim. The Use-Dilution Test also has its limitations, but nevertheless fulfills many more of the criteria of disinfection test methods than its predecessors.

Classes of Germicides

The three most widely accepted classes of germicides for institutional maintenance used today are the phenolics, iodophors, and quaternary ammonium compounds. A very recent introduction to this field has been the organo-tin complexes. A great deal of developmental work and testing has made possible the use of these germicides in combination with suitable detergents to produce multi-purpose products which clean, provide microbiological control and in the case of some, positive deodorization action.

One of the earliest developments in combining cleaners with germicides was the combination of soap with either phenolics or pine oils. In the light of current testing procedures, such as the Use-Dilution Confirmation Test, it appears that pine oils are not effective disinfectants and their application, particularly, in critical hospital areas, is being severely restricted.

The soap-phenolic combinations have been modified to the extent that synthetic anionic detergents have replaced part or all of the soap. Phenol derivatives require higher concentrations than either quaternaries or iodophors in order to obtain disinfection. Beckett (1) and others have pointed out that non-ionic detergents severely inactivate phenolics which obviates their use in the newer synthetic non-ionic based cleaning formulations. Phenolic derivatives exhibit activity against both gram-positive and gram-negative organisms, although they are less effective against gram-positives, such as staphylococcus.

Iodophors

A newer introduction to the industrial maintenance field has been the iodophors, which, for the most part, consist of iodine loosely complexed and solubilized with a variety of non-ionic detergents. There are no real differences between any of the formulated iodophors available with respect to germicidal activity, since the activity is merely dependent upon the amount of available iodine present. Iodophors have the advantage of a self-indicator for estimating loss of killing power, that is, the solution turning from deep amber to yellow or colorless. The amount of available iodine is primarily a function of pH, the most active solutions being acid at a pH of about 3-4. Care must be taken when using iodophors for general cleaning and disinfecting that the surface being treated is free from alkaline residues. Any such residual alkalinity will serve to neutralize the iodophor and considerably lower germicidal effectiveness. The high acidity of iodophors may have an accumulative effect in damaging certain surfaces and equipment, as terrazzo floors and galvanized metal. Iodophors cannot be built with alkaline phosphates to improve detergency.

Tin Compounds

A new class of germicides that has received considerable publicity in the recent past have been the organo-tin compounds such as n-tributyl tin oxide, known also as TBTO. These compounds are completely water insoluble but have been found to be solubilized by quaternary ammonium compounds. In a hospital study using this material, considerable emphasis was placed on air control by treating filters. Recent studies by the U. S. Public Health Service indicate surface treatment to be of prime importance. Until further work is forthcoming on-disinfectant levels of TBTO, employing standard procedures, its use will be somewhat limited. The exceptionally high cost and water insolubility of TBTO are additional deterrents.

Quaternaries

The quaternary ammonium compounds as a chemical class were described as far back as 1916. It has not been until recent years, with the advent of new derivatives, that their versatility in multi-purpose formulations has been fully exploited. It cannot be too strongly emphasized that quaternaries be judged as individual compounds rather than as a generic class of germicides. Even slight variations of the substituents attached to the nitrogen nucleus markedly affect the performance and properties of the material. The fact that a given quaternary at a stated use dilution level does not perform adequately against a specific microorganism does not mean that all quarternaries are ineffective for this application. This would be analagous to saying that since penicillin fails to control certain microorganisms, all antibiotics are useless.

Quaternaries are effective against both gram-positive and gram-negative organisms, generally exhibiting higher activity against the former group. Being cationic in nature they cannot be compounded with soaps or anionic detergents. Very suitable multi-purpose cleaner-disinfectants can be prepared utilizing a quaternary-non-ionic detergent combination. These products can either be liquid or powdered. While this basic concept is not new, such products

(*Turn to Page* 119)

REFINED (DEWAXED) **BLEACHED**

White Shellac

Preferred by Non-rubbing Floor Polish brand name manufacturers

Because of Uniform Quality — Quick and Complete Dissolving and Superior Leveling Properties — Long Shelf Life.

Plus High Gloss — Tough Scuff Resistance — Maximum Anti-Slip Qualities

STANDARDIZE WITH GRP SHELLAC

GILLESPIE-ROGERS-PYATT CO., INC.

Importers & Processors of Shellac & Shellac Specialties for Industry

Executive Offices: 75 West Street, New York 6, N. Y. Tel: WHitehall 3-9740

Plant: Jersey City, New Jersey

Sales Representatives & Warehouse Stocks in Principal Cities in United States

during the Great Depression. As a result the one big family concept crept into management and brought with it the idea that the ideal president must be democratic, a good coordinator, and quiet. Business management has become a profession, and the professional detachment of a lawyer or doctor has become the guiding tenet. Individual action, intuitive decisions cannot be part of this, and the key executive is expected to call in management consultants, motivational researchers, etc. to guide him in reaching a decision that in nine out of ten instances he would have arrived at anyway."

Mr. Hawley called for leadership to overcome this drift of American business. "If you don't have leadership, no organization can succeed," he declared.

"The American people never before were so united behind the goals we are pursuing as right now as a result of the leadership of President Eisenhower," Mr. Hawley stated.

Although American businessmen have wandered "way off the beam," the speaker said he thinks "the tide is changing." "A new image is being cast; a new prototype being set up." He added, "We need a vigorous, exciting force of leadership in all phases of our national life."

Mr. Hawley's remarks are to be the basis for an article in an early issue of the *Saturday Evening Post*, he indicated.

Wax Originator Honored

In saluting George F. Rodawald of Nu-Form Polish Co., St. Louis, for the origination of water-emulsion ("self-polishing") floor waxes, C. S. Kimball, chairman of the Waxes and Floor Finishes Division, pointed out that wax has been used on floors since the 13th century. Mr. Rodawald, who was to have been guest of honor at the Dec. 8 lunch, was unable to attend for reasons of health. The occasion for honoring Mr. Rodawald was the 30th anniversary of the first manufacturing and marketing of "Dri Brite Floor Wax."*

According to Mr. Kimball, in 1959, 85 per cent of the better than $100,000,000 dollars worth of floor waxes sold at retail in the U. S. were of the water emulsion type.

Insecticide Division

A symposium on non-agricultural spraying equipment was the highlight of the first session of the Insecticide Division the afternoon of Dec. 8. Participants included David P. Lewis, H. D. Hudson Manufacturing Co., Chicago, who with the aid of slides discussed and described "Sprayers for Garden, Lawn, Park and Recreation Areas." William L. Brehm, B. and G. Co., Plumsteadville, Pa., spoke on "Mill and Industrial Sprayers." His presentation included slide photographs of sprayer applications. The final panelist T. B. Welch of Gulf Oil Corp., Pittsburgh, presented a "Short History of Sprayers—Household, Dairy and Livestock." Mr. Welch used actual samples in his presentation and gave a short history of each sprayer.

Automotive Division

The first session of the Automotive Division was held the afternoone of Dec. 8th, with C. A. Weslager, E. I. du Pont de Nemours & Co., Wilmington, Del., division chairman, presiding.

Marcellus T. Flaxman of Wilco Co., Los Angeles, presented a paper he prepared with Curt Peacock of Calwis Co., Green Bay, Wis., on "Windshield Washer Fluids and Concentrates." He pointed out that a study by Wilco showed that corrosive elements in tap water commonly used in automobile windshield washer units caused corrosion and eventual clogging of wipers. Calcium and magnesium in the water were responsible for making washers inoperative. Mr. Flaxman said the introduction of surfactants into the water proved helpful, but cautioned that dilution proportions were significant in the selection of these surfactants or surfactant groups. Cationic surfactants cannot be used, he noted, since they affect the glass and yield a hydrophobic surface. Since washer fluids are bought by motorists mostly for winter use, a concentrate with a low freezing point is a must. Certain glycols can be used but only in limited amounts, Mr. Flaxman stated. The desirability of methanol is questionable because of its toxicity; ethanol was found effective but legal restrictions limit its use; isopropanol was found best to use in a washer unit because of its anti-freeze properties and low cost. In conclusion Mr. Flaxman stated that windshield washer fluids and devices must still come of age in much the same way as other automotive specialties.

Robert E. Gosselin of the department of pharmacology and toxicology, Dartmouth Medical School, Hanover, N. H., reported on "Toxic Chemicals" and toxicity ratings. First establishing a chart defining toxicity into ratings or classes with the probable lethal dosages for a human in each class, Dr. Gosselin then reviewed several automotive chemical specialties showing where they would be rated on his chart. He noted that conventional toxicity ratings for laboratory test animals conflict with clinical experience on humans. Methanol for example, has a low toxicity rating for animals and yet is highly toxic for humans. Thus clinical experience on man, he stated, is enough to challenge the toxocity findings on animals. In his conclusion, Dr. Gosselin ob-

*Mr. Rodawald, a "practical chemist," having taken courses in the subject with International Correspondence School, was born in Perryville, Mo., Feb. 6, 1886. In the early 1920's he was engaged in the manufacture of leather dressings and polishes in St. Louis. During 1926 he developed a formulation for a bright drying leather finish. His wife suggested that if he could make such a polish for leather, why not for floors. Stimulated by his wife's idea, he worked out a water-emulsion floor polish in the laboratory and brought it home to his wife, who immediately proclaimed it a very useful product. It took more than two years before Mr. Rodawald was ready to market locally a new floor polish, which he originally called "Miracui Wax." Later in 1929 a company was organized to manufacture and distribute the new floor wax under the brand name, "Dri Brite Floor Wax."

INDUSTRY'S LARGEST AND MOST MODERN POLYVINYL ALCOHOL PLANT, ON STREAM EARLY IN 1960

VINOL POLYVINYL ALCOHOL

From Airco's 20 million-pound-per-year plant at Calvert City . . .• VINOL in nine grades, each tailored to meet your needs for processing and formulation• VINOL for coatings . . . binders . . . sizing . . . textiles . . . paper . . . emulsions . . . available through Air Reduction Chemical Company.• VINOL for adhesives . . . available through *Colton Chemical Company*, Division of Air Reduction Company, Inc., 1747 Chester Avenue, Cleveland, Ohio. • For technical information on VINOL write today.

AT THE FRONTIERS OF PROGRESS YOU'LL FIND . . .

AIRCO®

AIR REDUCTION CHEMICAL COMPANY

A division of Air Reduction Company, Incorporated

150 East 42nd Street, New York 17, N. Y.

Represented Internationally by Airco Company International

served that of 15,094 toxicity cases reported last year, only nine cases dealt with anti-freeze and five with brake fluid, and in several of these the products were in alien containers.

"Methods of Evaluating Cooling System Additives" were discussed in a paper by Irvin W. Folk of Atlas Supply Co., Newark, N. J. The function of a radiator cleaner, he observed, should be to remove and hold in suspension deposits collected on the radiator walls without removing these deposits in chunks. Methods of evaluating this additive include visual inspection; centrifuging the cleaner before and after a test; a "look-see" test of the additive's effect on metals in the cooling system; and a compatability test with anti-freezes. The job of another cooling system additive, rust inhibitors, is much more complex today. They must prevent rust and corrosion in a variety of dissimilar metals and rubber. Among tests for rust inhibitors are an accelerated corrosion test (ASTM D1384); a test for foaming tendency; a method for determining reserve alkalinity to get an idea of how long the inhibitor will last; and a compatability test similar to that for radiator cleaners. The third additive discussed by Mr. Folk was cooling system stop-leaks which must stop leaks and keep them stopped under alternate pressure and atmospheric conditions without collecting at valve openings. Mr. Folk described a quick test devised by his firm to accelerate any stacking or clogging tendency of a stop-leak.

F. Dallas Sparre of E. I. du Pont de Nemours & Co., Wilmington, Del., reviewed briefly the jurisdictions currently requiring precautionary labeling of hazardous chemicals in his report "Progress of Legislation on Labeling Hazardous Chemicals." He cited two kinds of progress in this field, namely that from a "pool of experience" and increased legislative activity and court decisions. Mr. Sparre emphasized those areas or states which have laws based on the model bill agreed to by CSMA and listed those states which have enacted legislation recently. At the Federal level, he noted three bills have been introduced in Congress and should be acted upon in early 1960.

General Session

CSMA membership is at an all-time high of 430, H. W. Hamilton, retiring secretary reported at the general session, Dec. 9. He revealed also that "following the decision of the membership to oppose 'product certification' requirements the executive office (of CSMA) has followed the directions." In addition to contacting several groups and associations having product certification programs, a "policy to be followed by CSMA, and recommended to our industries generally was formulated at a special meeting" of interested members.

Mr. Hamilton said that progress has been made in obtaining similar or supporting action from other manufacturing and selling organizations. In general, he related, "those requiring 'product certification' are being cooperative in varying degrees." He reported that the president of CSMA has now appointed a new special committee to carry on the project of resistance to these practices.

In his final report as treasurer of CSMA, Peter C. Reilly said that "these past 10 years (as treasurer) have been very satisfying and rewarding." In 1959 it was "touch and go — financially" for the association, he stated, adding that next year there will be a "lot of activity which calls for increasing the budget."

Increasing activity against price discrimination and in advertising allowances by the Federal Trade Commission was foreseen by Robert L. Ackerly of Cummings, Sellers, Reeves and Conner, CSMA legal counsel.

Donald M. King of Masury-Young Co., Boston, in his report as CSMA president, commented on the number of resignations from the association. "Either they don't attend meetings and don't know what is going on, or they don't understand the purpose of CSMA", Mr. King said.

Elaborating on this latter concept he made these points regarding recent activities of CSMA:

"If no association existed, there would be government competition in wax making.

"If no association existed, there would be advertising to the effect that vinyl floors need no waxing.

(*Turn to Page* 206)

Nielsen on Aerosols

(*From Page* 101)

for all commodities versus 15.2 per cent for aerosol products. As we might expect, Metropolitan New York, the Mid-Atlantic section and Metropolitan Chicago show a somewhat stronger relative development for aerosols, whereas the West-Central and Southeast sections are relatively underdeveloped. However, aerosols have obviously won surprisingly uniform acceptance throughout all geographic areas.

A similar picture emerges if we divide the country by size of community, as shown on Chart 9. Here again, the bar on your right shows the division of all-commodity sales between the super "A" cities all the way down to the rural areas (population under 30,000). While the aerosols are relatively better developed in the highly urban super "A", remaining "A" and Class "B" markets and correspondingly relatively less developed in the more rural areas, the extent to which these products have been accepted for general use among all sizes of communities including the rural area is most noteworthy.

More important than the geographical and city size dispersion is the extent to which food/drug consumer sales of aerosols are continuing to expand in these five measured product groups. This is shown in Chart 11. Starting with 1957 as an index of 100, we see

(*Turn to Page* 117)

... about chemical specialties

MODERN CHEMICAL SPECIALTIES

by Milton A. Lesser

514 Pages

Price: $7.25 in U. S. A.; $7.75 elsewhere

THIS book covers the formulation, manufacture, and use of polishes, cleansers, detergents, floor-care and leather-care products, textile products, and industrial, household and allied chemical specialties. Each of the 42 chapters covers a different specialty and includes raw material listings, manufacturing methods and formulas for that specialty. The manufacturer, marketer, chemist and production man will find this book indispensable for reference work when dealing with chemical specialties.

Returnable in 10 days for full refund if not satisfied

Send check with order.

Add 3% Sales Tax if in New York City.

MAC NAIR-DORLAND CO
254 West 31st St., New York 1, N. Y.

Enclosed find our check for $..... for which please send ..... copies of Modern Chemical Specialties.

It is understood that if I am not satisfied with this book it may be returned within ten days for full refund.

Company .....

Address .....

City ..... Zone ..... State .....

By .....

(Check must accompany order. No COD's.)

DISINFECTANTS

don't HAVE to smell like it!

And that goes for your other sanitary supplies too! *Para blocks, naphthalene crystals, liquid soaps, polishes, waxes* and *cleansers*... an increasingly "odor conscious" public demands that they be pleasantly scented as well as effective. Build your sanitary products sales by giving them a subtle, appropriate fragrance that is distinctively their own. Make it an integral part of your brand recognition. To assist you in this effort, the D&O Industrial Odorant Labs are at your service. Sanitation alone is not enough... not today! Let the D&O industrial perfumers give to your sanitary supplies that essential extra... a scent that will add many dollars worth of sales appeal value.

Send us a sample of your unperfumed product and let us make specific recommendations.

"Essentially for you"

D&O ESTABLISHED 1798

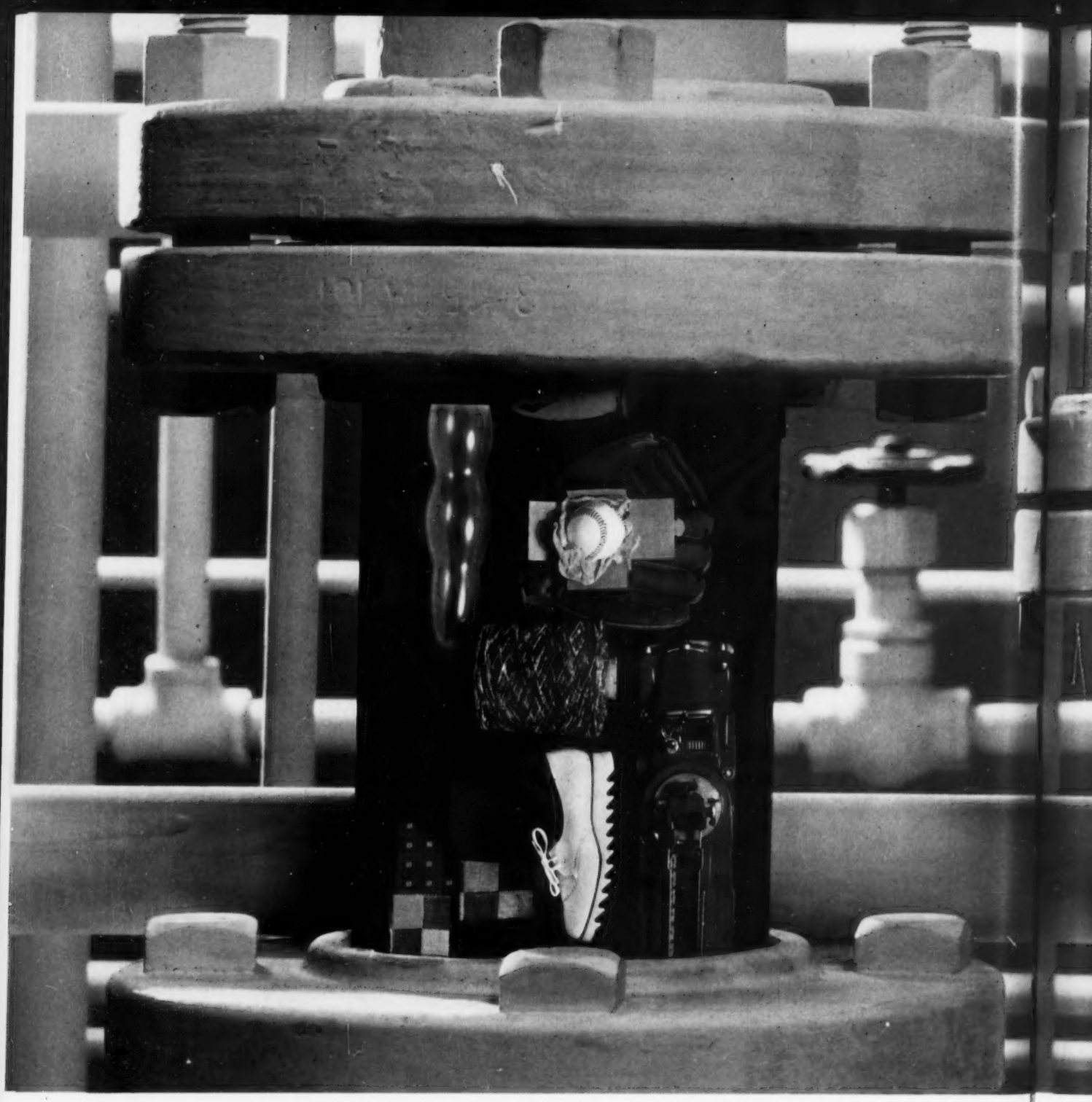
OUR 161ST YEAR OF SERVICE

DODGE & OLCOTT, INC.

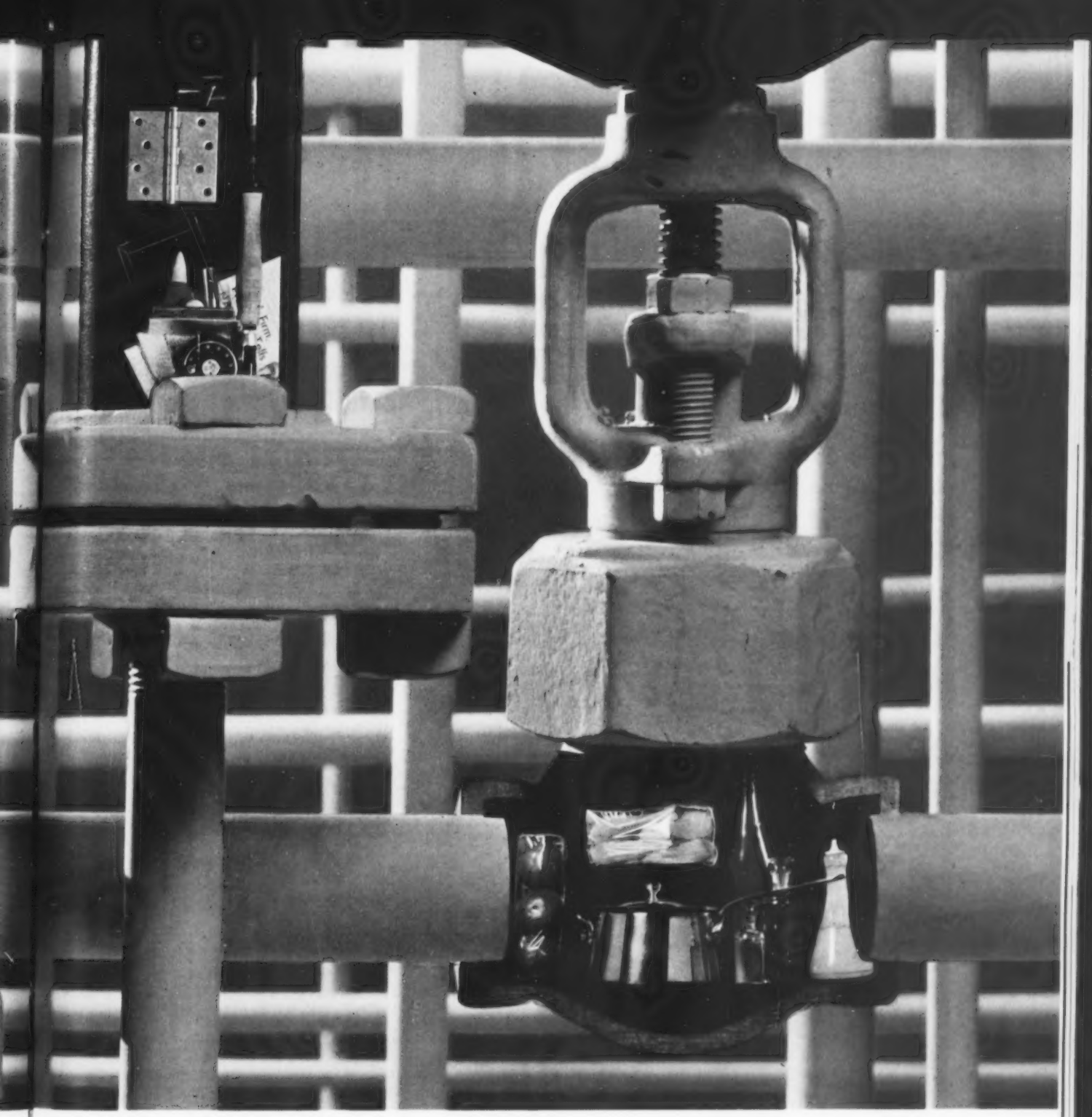
180 VARICK STREET • NEW YORK 14, N. Y.

SALES OFFICES IN PRINCIPAL CITIES

ESSENTIAL OILS • AROMATIC CHEMICALS • PERFUME BASES • FLAVOR BASES • DRY SOLUBLE SEASONINGS



FOR HELPFUL IDEAS ON THE CHEMICALS
THAT GO INTO YOUR PRODUCTS,
YOU'LL LIKE DOING BUSINESS WITH
COLUMBIA-SOUTHERN



You can count on smooth production when you use Columbia-Southern chemicals, because they'll be delivered to you on time, in the grades and quantities ordered. You'll find the quality consistently high, too.

But you get far more than prompt delivery and consistent quality when you work with Columbia-Southern. You can call on Columbia-Southern's solid experience in chlorine, alkalies, and related chemicals to help you improve the efficiency of your processing activities. Your Columbia-Southern Representative will give you sound, profit-building advice on such vital matters as forms and grades, transportation economics, storage methods, safety precautions, and applications.

Why not start with a general survey of your current purchases? Call in your local Columbia-Southern Representative and let him work with you in evaluating every step. You'll be glad you did.

Columbia-Southern Chemical Corporation, One Gateway Center, Pittsburgh 22, Pa. Offices in fourteen principal cities. In Canada: Standard Chemical Limited.

COLUMBIA-SOUTHERN CHEMICAL CORPORATION

A Subsidiary of Pittsburgh Plate Glass Company

Chlorine • Caustic Soda • Caustic Potash • Soda Ash • Sodium Bicarbonate • Solvents • Ammonia
Chromium Chemicals • Barium Chemicals • Sulfur Chemicals • Agricultural Chemicals • Reinforcing Pigments
Calcium Chloride • Muriatic Acid • Calcium Hypochlorite • Hydrogen Peroxide • Titanium Tetrachloride

CONCLUSIVE EVIDENCE OF THE SUPERIORITY OF CAUSTIC CLEANING FORMULATIONS CONTAINING Pfizer GLUCONATES!

If you compound caustic washing or cleaning formulations, you should put Pfizer Gluconates on trial in your formulas. Judge for yourself the economy and superiorities of caustic-gluconate formulations. Overwhelming evidence also shows that Pfizer Gluconates are stable, both in storage and in use, in caustic compounds.

EXHIBIT A

ONE SPARKLING CLEAN BOTTLE —The inclusion of Pfizer Gluconates in your formula will assure bottling customers of a compound which will give spotless results. Pfizer Gluconates have proven to be the product of choice for preventing formation of film on bottles and scale on equipment.

EXHIBIT B

ONE BRIGHT STRIP OF ALUMINUM —Pfizer Gluconates in your aluminum etching compounds prevent the formation of hard, adherent scale. Both Sodium Gluconate and Gluconic Acid increase caustic efficiency—you use less in your compounds yet assure your customers of a more uniform etch.

EXHIBIT C

ONE DE-RUSTED BOLT—Superior caustic rust removal compounds are now possible through the inclusion of Pfizer Gluconic Acid or Sodium Gluconate. In caustic solutions Pfizer Gluconates dissolve rust and prevent after-rust while increasing the efficiency and prolonging the life of the bath.

EXHIBIT D

ONE SHINY PIECE OF STEEL—Pfizer Sodium Gluconate and Gluconic Acid improve the effectiveness of your caustic paint stripping compounds by eliminating the usual brown layer of iron hydroxide. Also they permit freer rinsing of the paint-stripped metal.

THE VERDICT

The verdict is unanimous—Pfizer Gluconic Acid and Sodium Gluconate assure you of compounds with the highest cleaning and etching efficiency. Write Pfizer for complete technical data and information on the proper Gluconate use levels.

CHAS. PFIZER & CO., INC., Chemical Sales Division, 630 Flushing Ave., Brooklyn 6, N. Y. Branch Offices: Clifton, N. J.; Chicago, Ill.; San Francisco, Calif.; Vernon, Calif.; Atlanta, Ga.; Dallas, Tex.

(*From Page* 111)

that consumer sales of aerosols in these five measured product groups increased 17 points in 1958, 18 points in 1959 to date and we estimate that these same five measured product groups will achieve a gain of another 15 points, or approximately 11 per cent in 1960. Please bear in mind that we are dealing only with these five measured product groups. The aerosol field as a whole should show substantially greater expansion than this as new products are converted to aerosols and as some of the newer product groups already introduced but not covered in our survey really get going on the sharply rising part of the growth curve.

Some idea of what happens when the aerosol development results in a really outstanding product-package improvement is demonstrated in Chart 11. This depicts an eleven-year trend of shave creams—four years prior to the introduction of aerosols and seven years subsequent to their introduction. Observe that in the three years from 1947 to 1950 consumer sales of shave creams increased only 8.0 per cent with virtually no change during 1949 and 1950. Aerosols were introduced in 1951 and were accompanied, as you can readily see on the chart, by a sharp upward expansion in shave cream sales to an index of 209 in 1958—representing almost a 100.0 per cent growth for the entire merket.

Sales of all products were expanding quite rapidly during this period. Therefore on Chart 12, we contrast post-aerosol sales of shave creams with sales of twenty major groups of health and beauty aids including dentifrices, hair tonics, shampoos, headache remedies, first aid products, etc. You will observe that shaving creams—a comparatively static market prior to the development of aerosols as compared with many of these other products—gained much more rapidly than the twenty product class groups as a whole, the difference being approximately 20 points during most of this peroid.

One of the major reasons for this accelerated growth of shave creams subsequent to the introduction of aerosols was the fact that these products were actually and demonstrably increased in value to the consumer in this new form. This is in line with general experience as shown on Chart 13. Here we have determined the consumer sales between 1957 and 1959 for two groups of products. The 9.7 per cent growth of the thirty-three products on the left represents what happened when there were a few if any successful new or improved products introduced. The 17.9 per cent growth on the right, covers twelve entire product groups where new, dynamic improved brands and products were introduced.

Since correct application of aerosols almost invariably results in a new or demonstrably improved product, manufacturers able to adopt them can look forward to substantial growth for the entire field—perhaps at a pace twice as fast as other products not having the benefit of this improved package. Nielsen data also show that the first manufacturer on the market with a product improvement almost always secures the lion's share for his brand.

In the food/drug field shampoos, men's hair dressings and hair tonics, the very important and fast developing field of general-purpose household cleaners, and furniture polishes all offer splendid opportunities both from the standpoint of potential and the all-important factor of consumer convience in application. The food/drug consumer sales of these three product categories alone total approximately 600,000,000 units annually. Even if you are able to

Chart 11

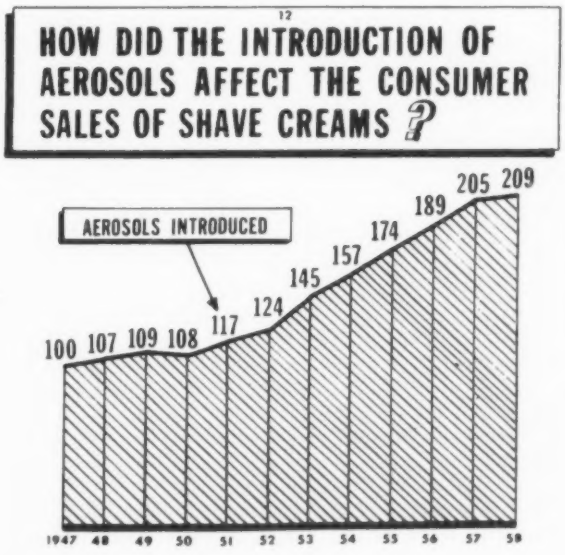
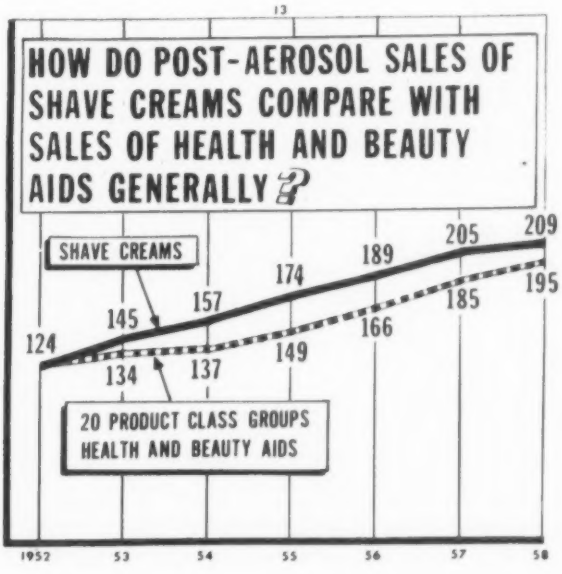
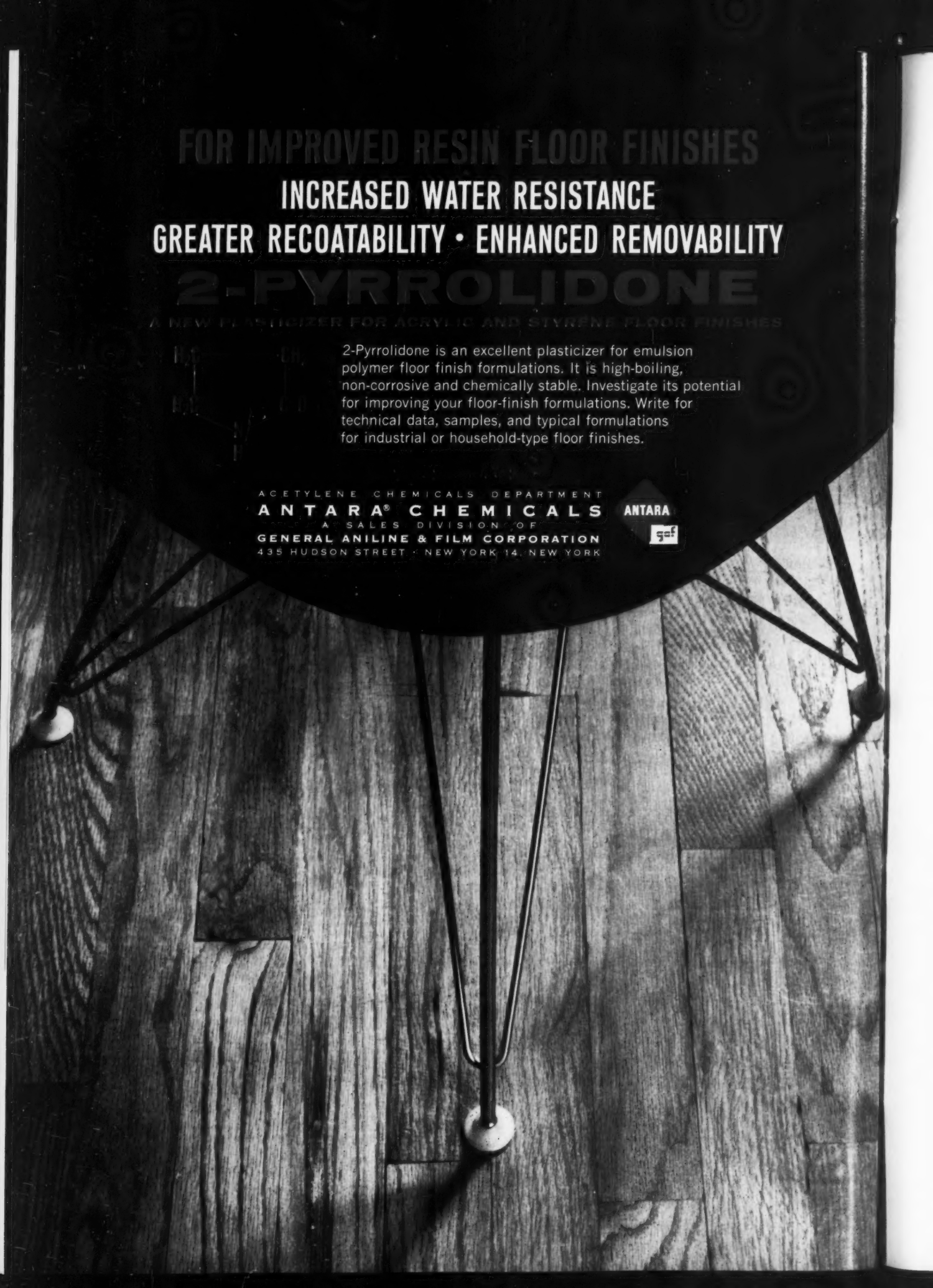

12
HOW DID THE INTRODUCTION OF AEROSOLS AFFECT THE CONSUMER SALES OF SHAVE CREAMS ?
AEROSOLS INTRODUCED
100 107 109 108 117 124 145 157 174 189 205 209
1947 48 49 50 51 52 53 54 55 56 57 58

Chart 12


13
HOW DO POST-AEROSOL SALES OF SHAVE CREAMS COMPARE WITH SALES OF HEALTH AND BEAUTY AIDS GENERALLY ?
SHAVE CREAMS
124 145 157 174 189 205 209
20 PRODUCT CLASS GROUPS HEALTH AND BEAUTY AIDS
134 137 149 166 185 195
1952 53 54 55 56 57 58


FOR IMPROVED RESIN FLOOR FINISHES
INCREASED WATER RESISTANCE
GREATER RECOATABILITY • ENHANCED REMOVABILITY
2-PYRROLIDONE
A NEW PLASTICIZER FOR ACRYLIC AND STYRENE FLOOR FINISHES
2-Pyrrolidone is an excellent plasticizer for emulsion polymer floor finish formulations. It is high-boiling, non-corrosive and chemically stable. Investigate its potential for improving your floor-finish formulations. Write for technical data, samples, and typical formulations for industrial or household-type floor finishes.
ACETYLENE CHEMICALS DEPARTMENT
ANTARA® CHEMICALS
A SALES DIVISION OF
GENERAL ANILINE & FILM CORPORATION
435 HUDSON STREET · NEW YORK 14, NEW YORK
ANTARA
gaf

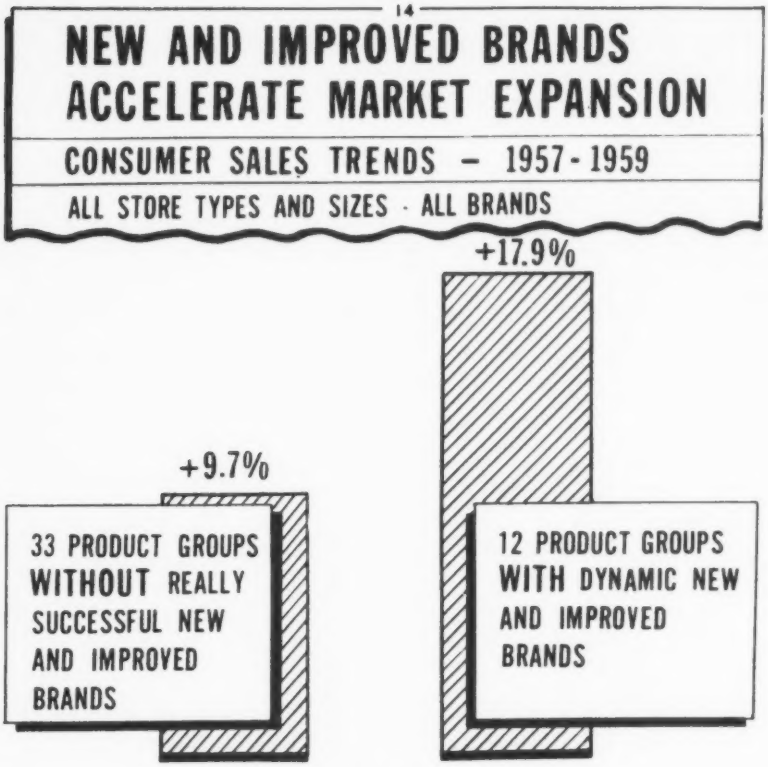

14
NEW AND IMPROVED BRANDS ACCELERATE MARKET EXPANSION
CONSUMER SALES TRENDS – 1957-1959
ALL STORE TYPES AND SIZES · ALL BRANDS
+17.9%
+9.7%
33 PRODUCT GROUPS WITHOUT REALLY SUCCESSFUL NEW AND IMPROVED BRANDS
12 PRODUCT GROUPS WITH DYNAMIC NEW AND IMPROVED BRANDS

Chart 13

convert only 30 per cent of this potential over the next five years, you will have built a very substantial additional volume—about 50 per cent more than your 1957 production from all non-food product sources combined.★★

Sanitizers

(*From Page* 107)

possess a singular advantage over the phenolic and iodophor dual purpose combinations in that in addition to their improved cleaning and disinfecting properties, one obtains excellent odor control without introducing a new odor or masking agents. Thus, the sanitation administrator has available to him as a one treatment process, a product that will clean, disinfect, and deodorize in a single operation.

Properly formulated products of this type will disinfect at levels of 400-600 ppm of quaternary. These use-dilution levels for several commercially available quaternaries have been shown to be effective against antibiotic resistant staphylococcus.

Much advertising literature has been devoted to the inactivation of germicides by organic matter, attempting to illustrate the superiority of one class of materials over another. It should be pointed out that references as far back as 1929 (2) show that representative phenolics are inactivated between 16 and 74 per cent by organic matter. For all practical purposes, the small amount of organic matter normally ecountered in institutional maintenance can be considered to affect all classes of germicides to some slight degree. Obviously, in cases where there is heavy organic soil, prior cleaning will be necessary before the surface is treated by any germicide.

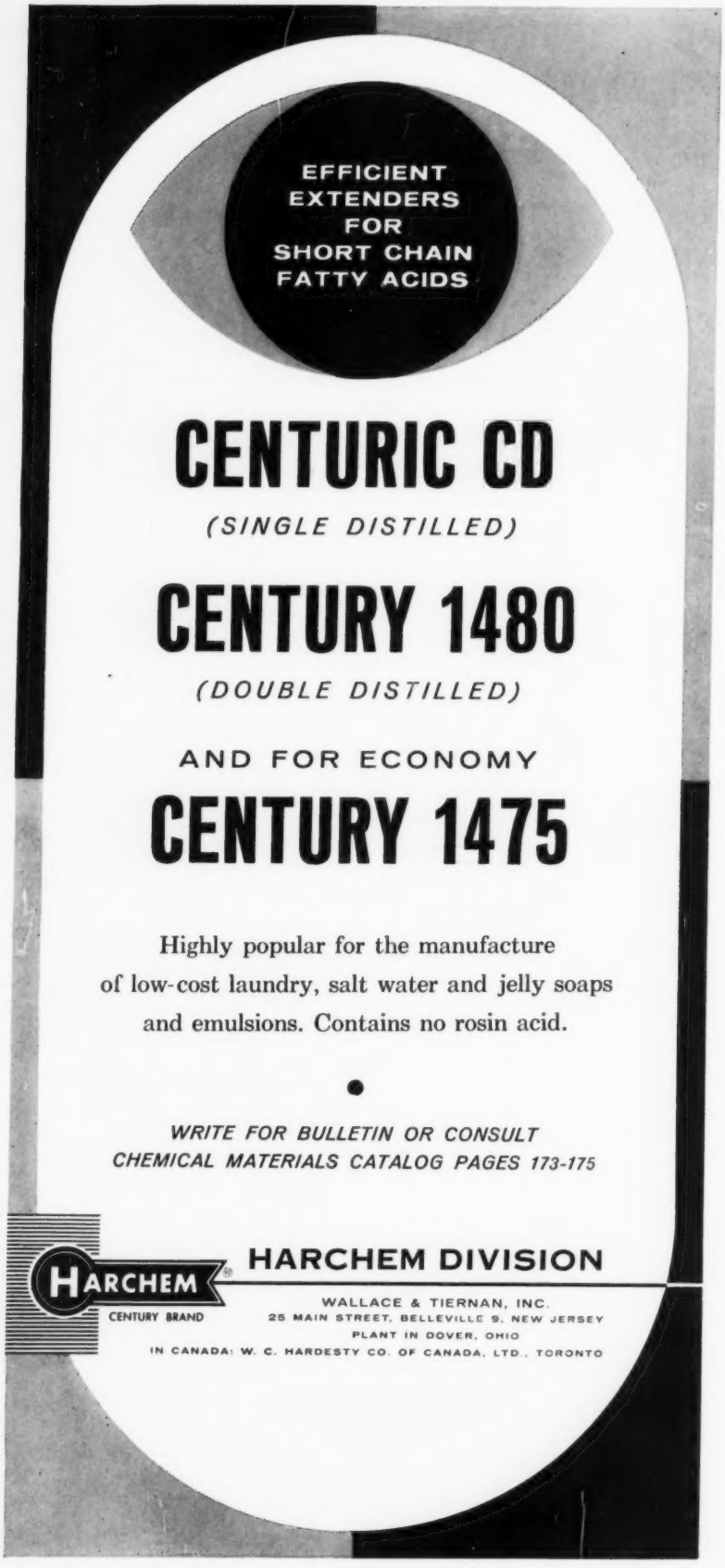
What are sanitation administrators seeking in the way of multi-purpose products? Obviously, the economics of the material as well as the possibility of saving labor time is of importance. However, these become of less significance upon consideration of the major question—just how effective are multi-purpose cleaner-disinfectant-deodorizer formulations. Will they perform in a single unit operation as well as individual detergent, disinfectant and deodorization operations?

Soil removal is not difficult to demonstrate. Sales claims for detergency can be readily evaluated after a short trial period in actual usage. In fact, a product may be rejected merely on the basis of its stated composition. For example, soap based cleaners may not be useful in the presence of hard waters where dulling films are rapidly built up. An acid product, such as the iodophors, may be unsuitable for terrazzo or metal surfaces. Solvent cleaners can cause damage to asphalt tiles.

Odor Control

Claims for positive odor control are also somewhat easily substantiated over a short trial period. The problem of odor control has become of increasing importance in any good sanitation program. Causes of odor are never entirely of bacterial origin. As a matter of fact, the incidence of bacterial odors is quite low when good sanitation procedures are in practice. It has been known for some years that several quaternaries possess deodorization properties apart from their germicidal action. While the mechanism of this action is still not well understood, it cannot be ascribed to a masking effect since quaternaries are odorless themselves.

It is in the area of microbiological control that the purchaser of sanitation chemicals must rely heavily on the integrity of the formulator and basic manufacturer. All products making disinfectant claims must do so only on the basis of approved and valid test methods. In the United States, all such products distributed in interstate commerce must be registered with the Department of Agriculture under the Federal Insecticide, Fungicide & Rodenticide Act.



While a great deal of the recent publicity on microorganism control resulted from the outbreak of resistant staphylococcus, it should be remembered that hospitals represent only a small marketing area for cleaner-disinfectants. Daily industrial and building maintenance applications are undoubtedly more than 90 per cent of the total market for cleaner disinfectants.

Certain non-ionic-quaternary based cleaner-disinfectant formulations are ideally suitable from both a performance and sales standpoint. They are non-toxic, non-irritating, and non-sensitizing in all recommended use-dilutions. Used on floors, they are labor-saving and cost-cutting for either manual or machine operated cleaning. They are safe and efficient wall cleaners and will not damage painted surfaces. They leave no scum and in many cases do not require rinsing. In plant restrooms and washrooms they are quite effective for urinals and toilets. Locker areas and safety equipment may also be advantageously treated with this cleaner-disinfectant.

The extreme versatility of specific quaternary based cleaner-disinfectants permits the marketing of a single formulation for use in both critical hospital areas as well as for regular building maintenance. While the sales emphasis in the former instance may be disinfection and in the latter instance cleaning, the fact remains that in any area of application, these products will perform a triple purpose —clean, disinfect, and deodorize. Industrial buyers involved in the purchasing of maintenance supplies can now be assured of products which will accomplish these three vital functions in a single operation.

The acceptance of non-ionic-quaternary multi-purpose formulations is evidenced by the increased number of products which have been successfully marketed in the past year. Several products are currently being test marketed for sale at the consumer level. Without

First impressions are important!

The right **FRAGRANCE** will make the right impression
. . . and in aerosol products fragrance is especially important.
Through extensive research in the aerosol field,
through broad experience in every field of fragrance
. . . van Ameringen-Haebler can help you best in the selection
of a fragrance for your new product.

van Ameringen-Haebler *division of*
INTERNATIONAL FLAVORS & FRAGRANCES INC.
521 West 57th Street • New York 19, New York
Leading creators and manufacturers in the world of fragrance
ARGENTINA AUSTRIA BELGIUM BRAZIL CANADA ENGLAND FRANCE GERMANY
HOLLAND INDONESIA ITALY NORWAY SOUTH AFRICA SWEDEN SWITZERLAND

M. ARGÜESO & CO. INC.
MAMARONECK REFINED
WAXES

Importers—Refiners
CARNAUBA
OURICURY
CANDELILLA
Crude—Refined
Bleached–Flaked–Powdered

•

BEESWAX
Crude
Refined
Bleached
Substitutes

•

MANUFACTURERS
Cerita CERITA WAXES Brand

SPECIAL WAXES
OZOKERITES
CERESINS
PALM WAXES
CASTING WAXES
RESIN BLENDS

•

Compounding to your specifications

M. ARGÜESO & CO. INC.
441 WAVERLY AVENUE
MAMARONECK, N. Y.
Owens 8-8500
Cable address: MARGUESO

doubt, non-ionic quaternary combinations represent a significant contribution to the entire sanitation field.★★

References

1. Beckett, A. H., & Robinson, H. E. *Soap, Perfumery and Cosmetics 31* 454 (1958).
2. Klarmann, E., et. al. *J. of Bact. 17* 423 (1929).

Protein Detergents

(*From Page* 59)

much foam as do alkyl aryl sulfonates when blended with foam stabilizing amides in the usual manner. However, blends of protein condensates with alkyl aryls and amides come close, and would have the added advantage of the mildness to the skin, as demonstrated in shampoos. This property could make them important ingredients of the newer lotion type dishwashing detergents, where skin mildness is stressed.

Hand Cleaners: A somewhat related use is in liquid hand washing compounds and surgical scrub soaps. Solutions of "Maypons" lather well on the hands, even in hard water, but do not leave the skin with a dry, papery feeling. Apparently the carboxyl groups in the protein condensates give them a "skin feel," similar to that of soap. Dispensed as a 15 per cent solution these products gave good results. For higher viscosity alkylolamides can be added.

Textiles: The wet processing of textiles is an important outlet for protein condensate surfactants. Type "K903" has perhaps been the one most widely employed in this industry, although others could be used.

For example, "Maypon K903" is used for scouring wool and synthetic fibers in both neutral and alkaline systems. It is also employed in combination with diethanolamides like "Ninol 1281" for the alkaline fulling, or felting, of wool. Addition of a "Maypon" to the peroxide bleaching step imparts a softer hand to goods.★★

Aero-Solve
YOUR PROBLEM
with
van dyk's
raw materials

ESCALOL SUNSCREENS
PERFUME COMPOUNDS
ABSORPTION BASES
DISPERSOLS
CERASYNTS
EMULSYNTS
FOAMOLES
MASKOLS

SINCE 1904 Van Dyk BELLEVILLE, N.J.

VAN DYK
and Company, Inc.
Belleville, New Jersey
NEW YORK — CHICAGO — LOS ANGELES — TORONTO

What's YOUR LINE?

Want to give it more sell? Make Roccal your "QUAT"

It's just good salesmanship to put the best ingredient names behind the good name of your product. That's why you'll give more sell to your formulation if you specify ROCCAL as your quaternary ammonium germicide.

For ROCCAL is the original "quat" widely accepted by compound manufacturers as the "standard." ROCCAL is prepared like a fine pharmaceutical product, laboratory controlled in every step of its manufacture.

Triple checked to insure uniformity, potency and quality, ROCCAL can be depended upon for superior germicidal action. Often imitated . . . never duplicated . . . ROCCAL in proper dilutions is highly stable, odorless, colorless, non-poisonous, non-irritating to skin, non-corrosive.

ROCCAL Concentrates are available in special-lined, non-returnable metal pails and drums.

GENUINE
Roccal
Reg. U. S. Pat. Off. and Canada
BRAND
SANITIZING AGENT

WRITE, PHONE, WIRE
for full data, prices, samples

Sterwin Chemicals INC.
Subsidiary of Sterling Drug Inc.
1450 BROADWAY, NEW YORK 18, N. Y.

The contract packager had the answer *... another success story from the ISOTRON® file.*

J. Myron Kimmel (left), president of Aeropak, discusses formula changes required for aerosol packaging with the marketer.

He packed PLUS PROFITS in a Push-Button Can

The paint marketer*—like many manufacturers—wanted to exploit the vast do-it-yourself market for aerosol-packaged products, but needed help. He went to a leading contract packager, Aeropak, Inc., of Chicago, and quickly got the technical aid he required. Now, thanks to Aeropak and the push-button can, the marketer has a new and highly profitable product . . . and milady paints with the skill of a "pro". To extend such services to marketers throughout the country, Aeropak recently acquired a new plant in Kearny, N. J.

If you have a candidate for the rich aerosol market, it will pay you to take advantage of the many services offered by the contract packager. He's a specialist in solving difficult problems; can help reformulate your product for aerosol use, recommend the best can, valve and propellent. An increasing number of packagers rely on Pennsalt ISOTRON® propellents to help turn "also ran" products into best sellers on the aerosol market.

**name on request*

ISOTRON—*The Key To Modern Living*

Pennsalt® Chemicals
ESTABLISHED 1850

Isotron Department 302
PENNSALT CHEMICALS CORPORATION
Three Penn Center
Philadelphia 2, Pa.

Packaging . . .

AEROSOLS · LIQUIDS · PASTES · POWDERS

"Trend" liquid dishwashing detergent of Purex Corp., Ltd., South Gate, Calif. is now being packaged in blow mold process high density polyethylene containers. Aqua in color, new container has distinctive hour glass shape. Twelve-ounce size comes in twin pack sleeve which carries brand identification and use directions. Bottle carries only embossed trademark. Larger 22 and 32 ounce sizes bear spot labels. Bottle suppliers are Plax Corp. and Royal Manufacturing Company.

Automotive Chemicals
Cleaners
Detergents
Deodorants
Disinfectants
Floor Products
Insecticides
Laundry Bleach
Metal Cleaners
Moth Products
Polishes
Shampoos
Shave Products
Soaps
Liquid Starch
Toiletries
and other
Chemical Specialties

A market for over 28 billion packages annually

Your challenge of the *EXCITING 60's*

THOUSANDS OF NEW PRODUCTS!

ANCHOR HOCKING'S COMPLETE LINE LETS YOU SELECT THE RIGHT GLASS CONTAINER AND CLOSURE TO HELP YOU MEET THE INCREASED COMPETITION! More new products of every kind will be introduced during the 1960's. This means more and more competition for the consumer's dollars.

How big a share of these dollars you get may well depend upon your product's package. To help you package your products most attractively and effectively for the competitive markets of the 60's, Anchor Hocking offers a complete line of glass containers and metal and molded closures.

Anchorglass® containers are supplied in crystal, amber, emerald green, georgia green and opal glass—in all standard styles, sizes and finishes. Anchor® molded caps in black, brown or other colors—and lacquered, coated or privately decorated Anchor metal caps—are available to meet your individual requirements. Anchor Hocking's complete line provides important glass packaging flexibility and capacity to help you meet your challenge of the 60's. Anchor Hocking Glass Corporation, Lancaster, Ohio—bringing you the extra values of *specialization* in glass packaging.

ANCHOR HOCKING

Get set for the exciting 60's with Anchorglass Packaging
—put an Anchor Man on your team

Miracle of the Can:

how it changed the habits of the world

One hundred and fifty years ago, Peter Durand, an English merchant, was granted a patent for vessels of "pottery, tin or other metals of fit materials." Thus, the miracle of the can was born. This early "tin cannister" packaged foods in sealed containers . . . and changed the habits of the world.

Today, not only food but an almost infinite variety of things we use and enjoy comes in metal containers. Paint, chemicals, household specialties . . . these are just a few of the products brought to us conveniently, economically . . . by the "miracle of the can."

Can manufacturers everywhere, in the U.S. and abroad, are enthusiastically preparing to participate in the Sesquicentennial of the Invention of the Metal Can. You may want *your* company to take advantage of this great opportunity to tie in with this important observance. The Sesquicentennial may be used as a springboard for stories, advertisements and promotions that can serve each organization's special needs.

American Can Company is proud to be a part of this great industry as it observes its 150th anniversary. Canco's continuing program of research and development is pledged to provide still better packaging for the products of agriculture and industry.

American Can Company

Salesmen Who Work for Nothing

Good packages are round-the-clock salesmen. When redesigned, be sure everyone including the consumer is made aware of the change.

By Walter F. Kohn*
Marketing Counsel
Croton-on-Hudson, N. Y.

MARKETING may be described as the whole cycle of activities that sells merchandise, from deciding what the product should be, through determining its potential markets, through the packaging, pricing and distribution, through the selling theme, through the advertising, the merchandising and the sales promotion, right on to the final sales to the customer.

As a marketing man, I have to put myself in the manufacturer's shoes to decide what the product should be; in a pair of research shoes to find out who might buy it, where, and to what extent; in the salesman's shoes to decide how best to present it; in the jobber's shoes to insure its acceptance by wholesalers; in the retailer's shoes to make sure I'm not only going to stock it, but keep moving it out to my customers; and in the consumer's shoes, to convince myself that I need it, and that I'm ready to pay the price asked for it.

Every step in this marketing cycle is important. Unless I eliminate all possible guesswork, in the same way you scientists do, my product can fail.

And of all the steps involved, the last one is the most important, because in last analysis it's the consumer who determines whether our product will sell—or die.

All members of this group make automotive chemical specialties. I'm sure each one of these is the best of its kind in the business. So we can skip the first step in the marketing cycle. We can even skip the second, because we'll assume that every automobile owner is a prospective customer. I'm not going to talk about pricing, because once I got started on that, I could talk all afternoon.

But packaging, distribution, salesmen, and product presentation are so intimately linked that I'm going to treat them as one.

Let me begin by telling you that you have thousands of salesmen who work for nothing, twenty-four hours a day and seven days a week. No union can tell them what they can or cannot do. They never send in an expense account. They never ask you for money, they never bore you with weather reports. All they need is a little more of your attention.
These salesmen are your packages

— the containers that sell your merchandise.

Some packages work hard and do a fine job. Some work hard without getting anywhere. Some don't work at all, and should be fired and replaced by more aggressive go-getters.

Unlike other salesmen on your payroll, your packages never talk back to you. They'll do exactly what you plan for them. But unfortunately many packages are turned loose without the backing of any kind of a marketing plan!

Let's begin by asking ourselves five questions about our packages. These are the same questions you'd ask yourself about any salesman you were hiring:

1. How does he look when he asks for a sale?
2. What sort of a selling job does he do?
3. What selling tools am I giving him?
4. Why doesn't he do the job he's supposed to do?
5. What should I do about him?

My diagnosis may be rough on some of your packages — but I'll try to suggest improvements as I go along.

So let's get down to specifics, and consider the cans and bottles of chemical specialties you're placing in gas stations and auto supply stores. And I mean "placing" — not "selling."

Because even if you've sold all you planned to produce, and collected for it, it doesn't follow

*Paper presented at 46th annual meeting, Chemical Specialties Manufacturers Association, Washington, D. C., Dec. 9, 1959.

that you've sold anything. Maybe all you did was to create an inventory problem for your retailers. I'll come back to that point later. But first, let's take a look at your packages.

How do they look? Not — how do they look in your office? But: how do they look when they go to work in the retail store that has to sell them?

They may look very good to you, and to the artist who designed them. And even to your wife and your friends and neighbors, not to mention your board of directors. They may even take prizes for good design.

But you need a much sharper set of opinions and values before you send your packages out to fight competition, before you can ask the consumer to swap his money for your package. Because that's really all any sale comes down to — one man swapping his money for another man's product because he thinks the product is worth what he's paying for it—and maybe a little more. And often it's your *package* that makes up his mind for him. If it looks like something he wants, if it looks better to him than your competitor's package, he'll buy it. If he doesn't, he won't.

That leads me to my second question:

What sort of a selling job do your packages do?

Right here I want to tell you about something that happened just three weeks ago. I was one of the judges in a packaging contest. In the toilet water and perfume category, one package stood out above all the others. It must have cost thousands of dollars to create, because it was a designer's dream in silver, produced to perfection. We all agreed it was by far the most beautiful package we had seen. Then one of us murdered it with three questions.

One question was, What is it?

The second was, What does it do?

Three, What does it sell?

We couldn't get the answers from that package. Yet those are the first three questions to ask yourself about any package.

For you automotive specialty people, the chemicals you make are basic necessities of life. Yet it may never occur to you that anybody can get along without them.

Well, you'd be amazed at the things people get along without. I get along without "Winston" cigarettes, not to mention other brands of cigarettes. Without "Bromo-Seltzer" or "Bayer's" aspirin. Without "Coca-Cola," "Pepsi-Cola," and all the other colas. For the time being, these United States are neither a totalitarian state nor a dictatorship. Which means that no power on earth can make me buy anything I don't want to buy, anything I feel I can get along without.

Me, and every other potential customer you have.

Because, while 62 millions of us may feel that our automobiles are necessities we can't live without, I can think of only one of your chemical specialties that is absolutely indispensable to me. That is anti-freeze. All the rest, the waxes, the polishes, the top lubricants, the carburetor solvents, and so on, are things we can get along without. Even brake fluid and transmission fluid are things we buy only when we get into trouble.

Face it, my friends: your automotive specialties aren't food, clothing or shelter. They provide no comfort to anybody's appetite, to his sex, to his digestion, to his ego, his old age, or his social security. They don't amuse the kids, they don't keep us up with the Joneses, or give us a lazy day at a tropical beach. People *can* get along without them. And whether you like it or not, millions of us do.

Right there is where the umpire — the consumer — calls the first strike on you. He dares you to make necessities of these chemicals he considers superfluous or non-essential. Do your packages meet that crucial challenge? Have you made them irresistible?

Let's look at our packages in the light of my third question: What selling tools are you giving these salesmen who work for nothing?

You oil men may say, "Our name is right there on the package, big as life. We spend millions every year advertising it. Everybody knows us."

O. K. So your name is selling your gas and oil.

Is the name alone enough to sell your chemical specialties, too? Or is your package sitting quietly on the gas station shelf, neatly lined up with its brothers and sisters, dreaming of a more useful life of its own?

Do you want your retailer to keep it there as an exhibit, an additional display for your family name? Or do you want him to get it out of there and into the hands of his customers as fast as he can, so you can sell him another order?

Your answer to that one is,

Lenk charcoal lighter package "sells itself on sight", says the author. Reason: Simple design tells what product is and what it does.

of course, that you need more volume out of every retail outlet you sell.

Fine. But when you're distributing through gas stations, this is where the umpire—the consumer—calls the second strike against you.

He does this by sitting quietly in his car while his gas tank is being filled. Most of the time he doesn't get up and go into the station at all. Which means that he doesn't even see your packages, no matter how good they are.

There are, of course, three occasions that bring him into the station where your packages ordinarily hide. One is when he uses his credit card. Well, a survey made last spring indicated that many of the people with oil company credit cards were using them only for identification, and paying cash for their gas.

Two other things that bring Mr. Consumer inside the station are a telephone, and a back room that says "Men."

None of these three occasions has anything to do with your chemical specialties. Yet they're the only inducements a consumer has for ever going into a gas station and being exposed to your packages, unless . . .

Unless, *you* do something about it, and give those packages some selling tools. And those tools have to be so powerful that you make it harder for the consumer to miss your packages than it is to see them.

You sell through auto supply stores, too. There people actually come in to buy. What kind of a face does your package present to the buyer? (Your package is your product's face, you know.)

Your package is so small that a child's hand can pick it up. It has to fight for attention with much larger goods like tires, radios, batteries, seat covers, bicycles, and a hundred other things—not to mention dozens of other cans and bottles competing with yours right on the same shelf.

Is your package giving you that last word that makes the sale? Or does it need better selling tools?

Here is what I mean by a selling tool: Most car owners know what top lubricants are. How many of them buy them? In the last few months I've become aware of one because it's been advertised on the air. Its name is "Bardahl. Too many advertisers would stop right there: with the consumer advertising. But Bardahl took out an insurance policy on its advertising.

Bardahl has placed racks of "Bardahl" *outside* the gas stations. Where customers can see the packages and be reminded of the advertising they heard on the air. At the right time—when they can see "Bardahl" and pick up a can—and at the right place—where they can buy it.

"Bardahl" 's package could be improved upon, but you can't miss seeing the name. And to millions of consumers the Bardahl name means something magical that cuts down motor noise and exhaust smoke.

Dramatic Proof

I got dramatic proof of this the other day when I stopped at a gas station that had not one "Bardahl" rack outside, but two of them. The owner told me he had sold more "Bardahl" in the last two months than he had sold in five years of all the other nine top lubricants he carries—and he's had at least three of the others for all those five years.

Now, some of you may say to me, "Once the retailer gets the merchandise, its up to him to move it."

If that's your philosophy, let me tell you that I have been driving cars for 28 years, and putting anti-freeze into them every winter.

I am still waiting for the first retailer to suggest that I try a radiator additive. After 28 years of winterizing my radiators, I can't tell you the name of a single radiator-sealing agent. I don't even know whether it is a liquid, a solid, a powder or a paste. I have no notion what a package of radiator additive looks like.

Is this the retailer's fault? Or have you makers of radiator additives failed to give their packages the impact that would force them on my attention? Or on the retailer's?

Here's another example out of my own experience. A few miles from where I live there is a gas station owned by a man I will call Smith. One thing Smith hates is a dirty windshield. He is so fanatical about this that he won't even try to take my money until he's finished cleaning my windshield. And what a job he does on it! Smith says *dirty windshields invite accidents.* And in those four words you have a better piece of selling copy than I've seen on any package of glass cleaner.

One day I asked Smith for the name of the stuff he was using; I said I wanted to buy some of it. And what do you think he said to me? He said, "I don't know what it's called. A fellow came in here one day and asked me to try it, and it worked so well I bought a barrel of it. When that's gone, I don't know what I'll use."

So I asked: "Don't you have other glass cleaners in stock?" Smith said, "Sure, I've got some I've had for years. But nobody ever asks for them, and by now they're probably all dried up."

Right there you have the short life and the quick death of a good product that never recognized the importance of a package.

You also have a measure of a retailer's interest in your automotive chemicals. If you tell me Smith's case is extreme, I'll agree. But if the average gas station operator isn't a merchant, could it be that he hasn't been taught that while gas and oil are his bread and butter, chemical specialties could help buy him a good steak dinner, complete with a shrimp cocktail and strawberry shortcake with whipped cream?

And what better place to

(*Turn to Page* 145)

your product belongs

in glass by Brockway

What makes a product belong? Acceptance by the consumer public . . . acceptance for the product itself . . . and acceptance for the container in which it is presented for sale. • A good product is greatly enhanced at the point of sale when presented in an attractive glass container . . . a glass container by Brockway. • Brockway provides individuality in a glass container . . . the kind of individuality that makes your product stand apart from all the rest, thereby providing a strong advantage at the point of sale. • A product that is worthy of consumer acceptance deserves a quality glass container by Brockway.

SYMBOL OF QUALITY — BROCKWAY GLASS CONTAINERS

BROCKWAY GLASS
COMPANY, INC., Brockway, Pennsylvania
Sales Offices in Principal Cities
SUBSIDIARIES: Demuth Glass Works, Inc., Parkersburg, W Va.
Tygart Valley Glass Co., Washington, Pa.

PACKAGING NOTES

Anchor Elects Fulton

Howard V. Fulton has been elected vice-president of west coast operations for Anchor Hocking

Howard V. Fulton

Glass Corp., Lancaster, O., it was announced last month by William V. Fisher, president. Mr. Fulton joined the company in 1914 and has made his headquarters in Los Angeles since 1942 as vice-president and general manager of Maywood Glass Co., a subsidiary of Anchor Hocking. He has been a director of the parent firm since 1947.

In his new post, Mr. Fulton remains in Los Angeles in charge of all west coast operations and the company's subsidiaries, including the Maywood and San Leandro, Calif., container plants, and a cap plant in Los Angeles.

—★—

FPBAA to Meet in March

The annual meeting of The Folding Paper Box Association of America will be held at the Ambassador Hotel in Los Angeles on Mar. 22 and 23. Entries in the 15th Folding Carton Competition will be displayed at the Ambassador the day following the meeting. They also will be shown Mar. 30 and 31 at the Drake Hotel, Chicago, and Apr. 12, 13, and 14 at the Coliseum, New York. Award winners in the competition are expected to be announced on Mar. 23. The association also announced that volume of business for folding cartons for the first ten months of 1959 amounted to $780 million, 3.4 per cent higher than in 1958. Tonnage of shipments for the period increased by 2.1 per cent.

—★—

NPBMA Competition

The annual box competition for members of the National Paper Box Manufacturers Association, Philadelphia, began last month and the deadline for submitting entries is Feb. 1, 1960. Judging takes place about Feb. 15 and winners will be announced at the association's convention in New Orleans, April 27-May 1. Theme of this year's contest is "Your Personal Gold Mine Box Competition."

Chairman of the contest committee is Peter Murner of Gerbereux, Dufft & Kinder, Brooklyn, N. Y.

—★—

McCarthys Shift at Vulcan

Vern I. McCarthy, Jr., was named president and director of marketing last month for Vulcan Containers, Inc., Bellwood, Ill.,

Vern I. McCarthy, Jr.

while his father, Vern I. McCarthy, Sr., moves from the presidency to chairman of the board. Mr. McCarthy, Jr., is the third generation of his family to serve as president of Vulcan which was founded by his grandfather in 1916. He has been with the company for the past 15 years, serving most recently as vice-president of marketing and director of sales. The senior McCar-

Vern I. McCarthy, Sr.

thy continues to play an active role in long range planning and research, according to the company. Vulcan manufactures a wide range of steel shipping pails, drums, and tinplate cans for the soap, wax, and chemical industries.

—★—

Knox Sales at Record High

Net sales of Knox Glass Inc., Knox, Pa., for its fiscal year ended Sept. 30, 1959 amounted to $42,648,676, an increase of 16 per cent over the record high of the previous year of $36,808,133. Net income was $1,137,585, or $2.27 per share, compared with $1,111,429, or $2.20 per share last year.

—★—

New Continental Box

The fibre drum and corrugated box division of Continental Can Co., 530 Fifth Ave., New York 5, recently developed a sift-proof corrugated box with pouring spout designed for packaging granular and powdered materials. Rectangular, the new box stacks for store display and has a corrugated pour spout that locks in position when

RISDON VALVE QUALITY IS VITAL INSURANCE

The payoff point for all the time and money invested in your aerosol product is at the fingertips of the user. That is where repeat sales are made or lost.

When your customer pushes the actuator, the performance-insuring quality of a Risdon valve becomes vital. And nothing less than Risdon quality gives full assurance of customer-pleasing results over the entire life of the package. An inferior valve can turn out to be your most expensive "bargain".

Risdon quality... performance-proven on many millions of packages... is the result of extensive scientific research and development. It is zealously guarded at every stage of valve manufacture by Risdon's uncompromising quality control.

Most *leading* aerosol packagers keep their success secure by using only Risdon valves to dispense their products.

Contact Risdon for specific information on the valve for your product.

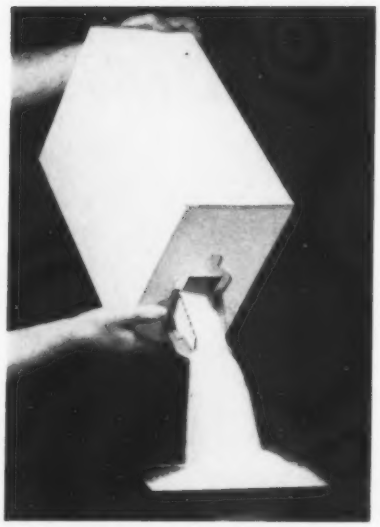
Write For Free Booklets
On RISDON Valves

FOR Pressurized Products Packaged in Glass, Metal or Plastic Containers.

DISPENSING Conventional Aerosols, 3-Phase Products, Alcohol Base Products, Water-Base Products, Foam Products, Powder Sprays, Metered Sprays, Ultra-Low Pressure Applications, Products Containing Propellent Emulsions or Dispersions, etc.

RISDON

THE RISDON MANUFACTURING CO.
Aerosol Division • Naugatuck, Conn.



Continental Can's new sift-proof corrugated box with pour spout locked in open position. Box is filled from side opposite pour spout.

opened. Surface of box lends itself to be printed in color. Adaptable to conventional automatic packaging equipment, the new box is filled from the bottom or non-pour spout side. It is expected to be used for the packaging of detergent and soap granules, powders or flakes, chemicals, and fertilizer.

★

Vulcan Elects Mrs. Zuck

Mrs. Ruth Janet Zuck was recently elected vice-president of Vulcan Steel Container Co., Birmingham, Ala. She is the wife of Gordon Zuck, founder and president of Vulcan. Director of personnel since 1954, Mrs. Zuck continues in that capacity while adding new duties in sales and production administration.

Janet Zuck

Denson in Knox Glass Post

Kenneth E. Denson was recently appointed a sales representative for Knox Glass, Inc., Knox, Pa., manufacturer of glass containers. In his new position he covers the St. Louis, Mo., area. Mr. Denson has been associated with Knox since 1952 in various sales capacities.

★

Plax Advances Five

Five advancements at Plax Corp., Bloomfield, Conn., three in the marketing department and two in the research and development group, were announced last month.

Richard J. Morcom, formerly an assistant research manager, has been appointed manager of technical service in the film and sheet sales division.

Lawrence D. Barr and Merlin L. Evans have been named section supervisors in the research and development department.

John Carlile is now responsible for the product management of the company's new folding tray and box marketing program involving the use of Plax' "Polyflex" biaxially oriented polystyrene sheet.

Roger J. Chamberland replaces Mr. Carlile as manager of marketing administration.

★

Metro Glass Names Kostin

Samuel Kostin was recently appointed special representative in Baltimore, Md., for Metro Glass Co., Jersey City, N. J. Manager of the company's Baltimore branch sales office for the past several years, Mr. Kostin continues to maintain his headquarters in that city but reports directly to Metro's general offices in Jersey City. James E. Lowry, formerly a Metro salesman in Baltimore, succeeds Mr. Kostin as manager of the branch.

★

Crown Dedicates Plant

Crown Cork & Seal Co., Philadelphia, officially opened its new can manufacturing plant in Winchester, Va., recently by holding a three-day open house with a variety of activities for residents of the area. During the event several tours were conducted through the new plant, a luncheon was held for Crown executives and Winchester leaders, and Crown officials returned visits with other industries in the vicinity. The new plant is reported to be the most modern production unit of its kind in the area and has been designed for future expansion.

Kenneth E. Denson

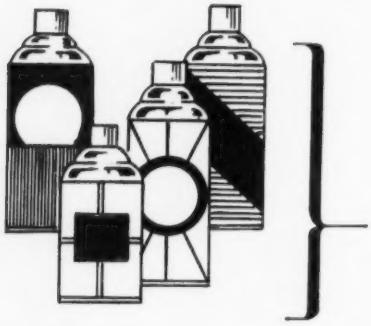
★

New Vulcan Sales Manager

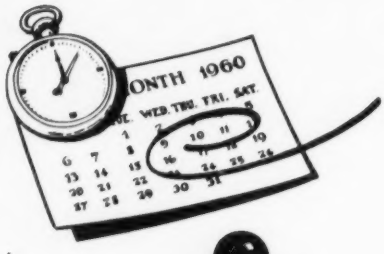
Eugene W. Gehm has been appointed sales manager of Vulcan Containers, Inc., Bellwood, Ill., manufacturer of steel drums, pails, and tinplate cans, it was announced last month by Vern I. McCarthy, Jr., president. In his new post, Mr. Gehm is responsible for the direction of Vulcan's national sales activities. With the company for 13 years, he was most recently assistant sales manager.

Eugene W. Gehm

EVERYTHING IN AEROSOL FILLING



what YOU want



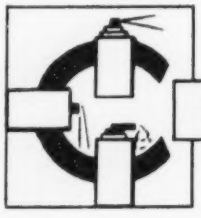
when YOU want it

where YOU need it

from

CONTINENTAL FILLING CORPORATION

Continental Filling Corporation has continually kept ahead of the pressure packaging field, since its inception. New methods, new equipment, new ideas are continually being incorporated into Continental Filling's facilities. That is why Continental Filling's customers get what they want, when they want it, and where they want it. Call on Continental Filling's Technical Service Department . . . it's available to all, without obligation, at any time.



CONTINENTAL FILLING CORPORATION

Danville, Illinois

Cox in A. H. Wirz Post

Henry W. Cox was recently appointed sales supervisor for A. H. Wirz, Inc., Chester, Pa., maker

Henry W. Cox

of collapsible tubes and other containers. Having had experience in various phases of the firm's manufacturing operations, Mr. Cox now serves in a liaison capacity between the sales and production divisions for all company products and coordinates sales of these products through the sales offices. His position as sales supervisor is newly created, according to Wirz, because of the company's expanding operations in new areas such as plastic aerosol containers, bottles, tubes, and other plastic specialty items.

—★—

O-I Appoints Coleman

Edward A. Coleman has been appointed eastern manager of closure sales in the closure and plastics division of Owens-Illinois Glass Co., Toledo, O., it was announced recently by James A. Rudy, division sales manager. Formerly a plastics sales representative in the New York office, Mr. Coleman now assists branch managers and salesmen of the eastern region on closure problems. He also has served as closure consultant in the company's packaging research division. Mr. Coleman is succeeded by Frank M. Harris who joined O-I in 1955 and was assigned to sales of containers to the drug and chemical industry for Kimble Glass Co., an O-I subsidiary. For the past year he was in Toledo as merchandising coordinator in closures and plastics.

—★—

Packaging Show Sold-out

More than 140,000 square feet of exhibit space, the total capacity of Convention Hall in Atlantic City, N. J., has been sold by the American Management Association, New York, for its 29th National Packaging Exposition to be held there April 4 to 7. The AMA announcement last month noted that this was the first time in the history of the exhibit that space has been sold out so far in advance. A total of 326 exhibitors will participate in the show. The National Packaging Conference, to be held concurrently with the show, has as its theme "Packaging for Profit."

—★—

Hazel-Atlas to Build Lab

Plans were announced last month by the Hazel-Atlas Glass division of Continental Can Co., New York, for a $1.5 million research and development laboratory at Plainfield, Ill., near one of its container manufacturing plants. Located on an 11 acre site, the laboratory will carry out research on glass compositions, melting and new methods of forming and treating glass, and will develop new glass container products. An equipment development group will design new devices to form, inspect, and handle glass containers. Ground was broken for the project last October and the building is presently under construction. The new laboratory will house administrative offices, a library, and cafeteria in its one story front section and laboratories, shops, and pilot area in its two story rear portion.

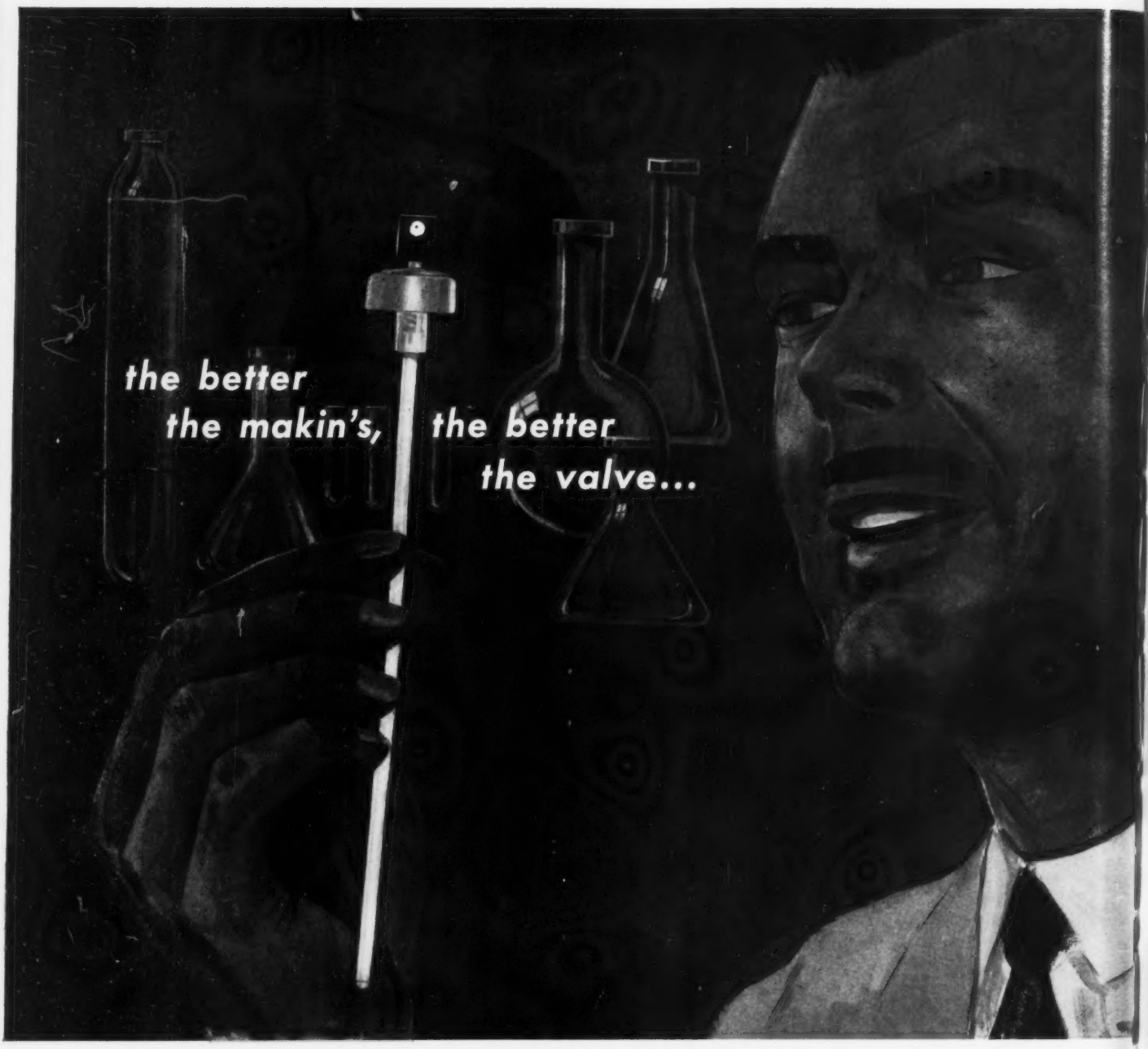
Architect's rendering of proposed new $1.5 million research and development laboratory to be built at Plainfield, Ill., by the Hazel-Atlas Glass Division of Continental Can Co., New York. Ground for building was broken last October and building is now under construction.

Smith in Continental Post

P. N. Smith has been named an assistant products sales manager in the non-food can group of Con-

P. N. Smith

tinental Can Co., New York, it was announced last month by L. G. Cannella, product sales manager of the group. Formerly a metal can sales representative in Cleveland, Mr. Smith's product line now includes all aerosol products, antifreeze, and motor oil. He makes his headquarters at the company's New York office.



You get better makin's in a Newman-Green

Newman-Green embodies the finest possible parts into an aerosol valve that pressure fills faster, more uniformly. Typical of the many exclusive design features are • No small orifices in metal parts • Delivery tubes swedged on, not slipped over valve body • Spray patterns can be completely varied in seconds by simply changing the spray head • All metering orifices and spray heads are easily accessible for cleaning. These better makin's give your aerosol product a competitive edge—mistier sprays, more dependable operation. When you do business with Newman-Green, you can depend upon personal service that goes beyond the sale. Call your Newman-Green representative today.

WESTERN DISTRICT
1144 East Meda Avenue
Glendora, California
MAdison 6-9980

EASTERN DISTRICT
415 Lexington Avenue
New York 17, New York
MUrray Hill 7-7147

MIDWEST DISTRICT
151 Interstate Road
Addison, Illinois
Kingswood 3-6500

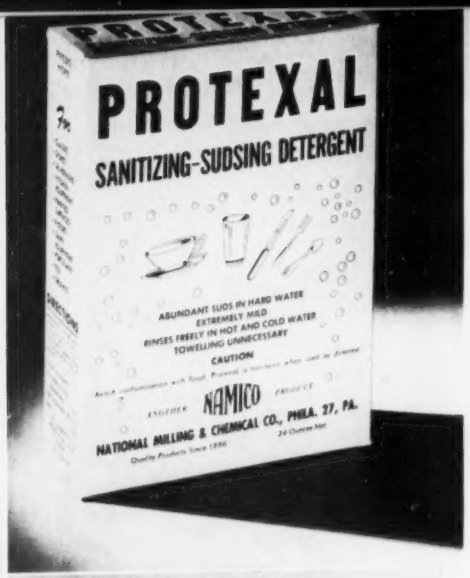
NEWMAN-GREEN *Creative Aerosol Valve Engineering*

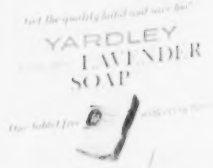
What's New?

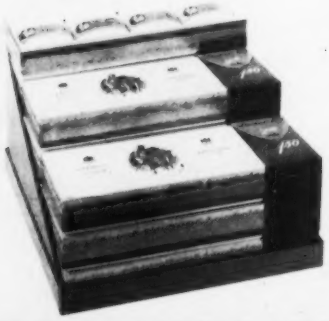
"Gag" gift aerosol, "Lady Chatterley's Instant Sexx," is recent addition to fun and frolic novelties of Tip 'n Twinkle, Inc., Roanoke, Va. Six ounce Crown "Spraytainer" dispenses heavy Oriental perfume spray. "Formula" was developed and product loaded by Pace, Inc., Wilmington, Del., contract aerosol filler. Package, designed by Herman W. Genth Foundation for Marketing, Philadelphia, retails for $1.00.

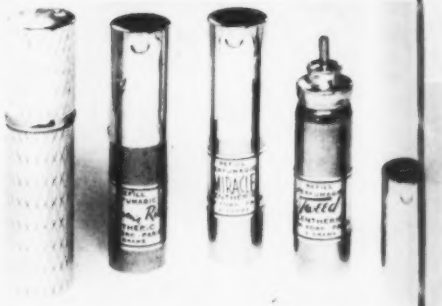
Reformulated "Sapolio" powdered cleanser, right, also contains "instant" bleach, it was announced recently by John T. Stanley Co., New York. Stanley acquired the "Sapolio" trade mark from Sapolio Products, Inc., last summer. The label for the 14-ounce container is also new. The scouring cleanser is being sold through jobbers and distributors. The scouring cake in its traditional wrapper, left, continues to be made and marketed by Stanley.

"Vita-Fluff" shampoo, a product of Duon, Inc., Coral Gables, Fla., is now being packaged in 16 ounce and 3½ ounce plastic jars. Product was previously packed in opal glass jars. Introduction of new jar, made of polystyrene, is being supported by extensive advertising program in 14 newspapers covering 67 markets. While product previously was sold mainly to professional beauty industry, it is now being introduced to select retail outlets in drug and food industries in U. S., Canada, Europe, South America and the Caribbean. Plastic jars are supplied by Owens-Illinois Glass Co., Toledo; metal closures by Crown Cork & Seal Co., Baltimcre.









Top, left

A new package for its "Protexal" sanitizing-sudsing detergent was introduced recently by National Milling & Chemical Co., Philadelphia. The detergent is said to provide abundant suds in hard water and rinses freely in hot or cold water with no towelling necessary. It can be used for cleaning and sanitizing dishes, glassware, silverware, painted surfaces and dairy equipment, the company states. New cardboard package is in yellow with black and red lettering.

Top, center

Oil Specialties & Refining Co., Brooklyn, N. Y., has changed from a paper label on the "Safite" floor finish to a dark blue and light blue lithographed label on the five gallon pail. The product can be used on all types of floors.

Top, right

"Red Lilac Mist," a toilet water concentrate, will be introduced soon by Leathers, division of Helene Curtis Industries, Inc., New York, in a plastic "Lilac Chintz" scent.

Bottom, left

"Tauentzien," believed to be the first aerosol cologne propelled by carbon dioxide, was recently introduced by Otto Muller, G.m.b.H., western sector of Berlin. The aerosol container features a "Micro-Mist" valve and actuator made by Solfrene Srl, Italian licensee of Risdon Manufacturing Co., Naugatuck, Conn. Blue metal container has a silk-screened reproduction of the Berlin cathedral. Lettering is gold and the cap is gold anodized aluminum.

Bottom, left, inset

An aerosol bath powder called "Poudre Glacee," (see inset), has been introduced by F. Millot of New York and Paris in six ounce "Spro-tainers" from Crown Cork & Seal Co., Philadelphia. The spill-proof, purse-size container retails for $3.50 and features a metered valve. The powder bears Millot's "Crepe de Chine" scent.

Bottom, center

In its first promotion of 1960, Yardley of London, Inc., New York, will introduce English Lavender soap next month in a pack of four bars for $1.50, the regular price of three. One dozen packs are held in a self-service counter display unit available to retailers. Each box features an end sleeve in red.

Bottom, right (top)

Three fragrances from Lentheric division of Helene Curtis Industries Inc., New York, called "Tweed," "Adam's Rib," and "Miracle," are available in aerosol containers for insertion into the "Perfumagic" purse-size outer case at left, made by Risdon Manufacturing Co., Naugatuck, Conn. Risdon also produces the inner case and actuator and George Barr & Co., Chicago, is the filler.

Bottom, right (lower)

Old King Cole, the nursery rhyme favorite, is now available with his fiddlers three in a set of four cakes of sculp-

nized soap from Stanley Home Products, Inc., Westfield, Mass. Packaged in a cardboard castle which can be used as a play toy, cakes weigh three ounces each except king which is four ounces. Suggested retail price is $1.65.

Top, left

A new water emulsion floor finish, called "Raltec," was recently shown by the I. S. Paul division of Wyandotte Chemicals Corp., Wyandotte, Mich. Designed for commercial, industrial, and institutional use, the product contains polyethylene. "Raltec" is said to be water-resistant, scuff and dirt resistant, applies easily and dries quickly.

Top, right

Stanley Home Products, Inc., Westfield, Mass., recently introduced "Sweater 'n Skirt," a new soap and cologne set designed for the teenage market. Gift carton decorated with daisies is in pink and lavender and the three cakes of scented soap are in a daisy design. Fragrance for both soap and cologne was selected by a teenage panel, according to Stanley. The set retails for $1.49.

Bottom, center

Silicone furniture finish from O-Cedar division of American Marietta Co., Chicago, called "Instant Dri-Glo," is now packaged in a simulated gold aerosol container. The new spray application provides for waxing and dusting in one operation, O-Cedar says. Product is backed with national television advertising.

Bottom, left

New wrapper for "Cuticura" soap made by Potter Drug & Chemical Corp., Malden, Mass., marks the first complete packaging change for the product in over 80 years. Designed to increase visibility on display shelves, the wrapper has a horizontal design with lasting and sides in black and orange and white lettering. Small white box on the back of the package has a miniature black and orange pennant, the new "family" emblem for Cuticura products. Regular soap bar retails for 25 cents.

Bottom, right

A 23 pound package of "All" detergent from Lever Brothers Co., New York, is available in a simulated redwood container which can later be used as an ice bucket, waste basket, planter or log holder. Valued at $1.49, the pail is being introduced as a replacement for the previous cardboard metal container. Label on the container is easily removed. The new package retails for about $5.95, the same as the former pack.

See Tremendous Sales Potential For Aerosol-Sprayed Paints
NEW YORK, N.Y. (Special) Sales of aerosol paints to the "do-it-yourself" home market have increased 158% in just 2 years, yet ...les are only a drop in ...pared to po-
SALES OF AEROSOL PERFUME UP 518% IN JUST 3 YEARS
NEW YORK, N. Y. (Special) 1958 sales of aerosol perfumes and colognes shot up to a record 28 million units—an increase of 518% over the 5.4 million units sold as recently as 1955.
PRESSURE-PACKED DRUGS SHOW 50% SALES INCREASE IN '58
CHICAGO, ILL. (Special) Pharmaceuticals were the fastest growing of all aerosol product groups, according to sales figures released by the Chemical Specialties Manufacturers Association. Pressure-packed drugs showed a sales increase of 50% in 1958 over 1957, compared to a 20% increase for all aerosols.
Aerosol Packaging Expands Household Insecticides Market
NEW YORK, N.Y. (Special) Aerosols have been responsible in large degree for increasing the total market for household insecticides during the past decade. The aerosol form has taken over an ever-increasing share of the market.
genetron

Behind the headlines...

VERSATILE genetron® AEROSOL PROPELLANTS

General Chemical offers aerosol fillers and marketers a broad line of "Genetron" propellants for producing virtually every type of aerosol product.

These propellants are compatible with each other and can be blended together to obtain a wide range of pressures and solvent properties. Our aerosol specialists will be glad to help you determine the right "Genetron" propellants for your product, its container and its uses.

genetron 12—11 Mixes

Mixtures of "Genetron" 12 and 11, used in varying proportions, constitute the bulk of propellant requirements for a variety of pressurized products. These mixtures offer optimum vapor pressures, excellent compatibility with numerous materials, and economy.

genetron 12 (Dichlorodifluoromethane)

Compatible with many product ingredients. Used in formulations where high vapor pressure is required, such as in paints and lacquers.

genetron 11 (Trichloromonofluoromethane)

Good solvent properties. Used primarily as an effective pressure depressant on "Genetron" 12.

genetron 114 (Dichlorotetrafluoroethane)

Used primarily in place of "Genetron" 11 in certain formulations (specifically those containing water) to achieve product stability. Mixtures with "Genetron" 12 have made possible a number of new aerosol products in the drug and cosmetic field.

genetron 142b (Monochlorodifluoroethane)

Used increasingly as a propellant for cosmetics containing substantial proportions of alcohol (perfumes, etc.). Like all "Genetron" propellants, it maintains constant vapor pressure and uniform performance during entire discharge of the aerosol. Its high vapor volume and low liquid density enable manufacturers to formulate a greater volume of product ingredient per ounce of propellant.

genetron 142b—114 Mixes

Blend well with alcohol—ideal for perfumes, colognes and other personal products (actually enhances fragrance). Low vapor pressures permit glass and plastic packaging. Containers look fuller because of low liquid density of propellant.

Other "Genetron" propellants are offered for use principally as blending agents:

genetron 113 (Trichlorotrifluoroethane)

Has good solvent properties and low vapor pressure. Particularly suitable for blending with other "Genetron" propellants in such formulations as dry powders or foam products.

genetron 22 (Monochlorodifluoromethane)

Used as a blending agent where its high vapor pressure and excellent solvent properties are required.

genetron 152a (Difluoroethane 1-1)

Has unique solvent characteristics that make it useful in water base aerosols.

Special propellants are available for use where special properties are required, including:

Methylene Chloride*
Methyl Chloride*
Vinyl Chloride*

For further information about these propellants, or a confidential discussion of your requirements, write today to "Genetron" Dept., General Chemical Division, Allied Chemical Corporation.

*Products of Allied Chemical's Solvay Process Division.

Allied Chemical

GENERAL CHEMICAL DIVISION
40 Rector Street, New York 6, N. Y.

Glass Container Improvements

Stronger, more shock resistant and lighter weight glass container available by 1970, Dr. Arthur W. Wishart tells New York Security Analysts meeting

A PREDICTION that "the glass used in the commercial containers of 1970 will be 50 per cent stronger and more shock resistant than it is today and that it will be 20 to 30 per cent lighter in weight" was made Dec. 28 by Dr. Arthur W. Wishart, president of Knox Glass, Inc., Knox, Pa.

Speaking before a meeting of the New York Society of Security Analysts, Dr. Wishart further forecast that by 1970 commercial glass containers, now available only in four or five standard colors, "will be provided in most 'colors of the rainbow'—and at little, if any, extra cost."

Greater gains in "improved" manufacturing methods and in the development of "improved materials" in the next 10 years than have been made in the past half century were foreseen by the Knox president. "Automation, already well advanced (in the manufacture of glass containers), will become an increasingly potent factor, and . . . by 1970 the output per employee will be doubled," Dr. Wishart declared.

Applied color labeling, selecting, packing and warehouse operation, "which alone employ 80 per cent of the present factory work force . . . offer great potentials for future automation," Dr. Wishart pointed out.

Dr. Wishart, who revealed also that Knox is planning to build a plant in Georgia, in or near Atlanta, predicted "increased competition from within as well as from outside" the glass container industry "where other and new forms of packaging are showing more aggressiveness than has been normal in the past." As a result of this competition, the Knox president declared that each manufacturer of glass containers will "become more aggresive in research, in sales and in improving manufacturing methods."

In the next decade industry opinion is that sales of commercial glass containers will grow approximately five per cent, compounded annually. In Dr. Wishart's opinion this figure is "too conservative." His estimate was that average annual growth will be closer to six per cent.

Since 1954 the glass container industry grew approximately 33 per cent in dollar volume. His own company in the period showed a gain of 67 per cent, Dr. Wishart said. He conceded that while Knox does not expect to maintain this "double-that-of-the-industry" rate during the entire period, his firm's growth in the sixties will "exceed that of the industry by at least 20 per cent."

In answer to a question from the audience at the conclusion of his address Dr. Wishart revealed that while Knox did not expect to diversify the nature of its operation, it was "taking a close look at the plastics field." In fact, the firm has hired a plastics "expert" to study the situation. The company's "primary interest" is in "bringing Knox up in the glass container field," Dr. Wishart declared.

He termed packaging as "one of the most important factors in the entire marketing procedure," and said "the package can be as important as the quality of the product and the integrity of the manufacturer" in the selling of a consumer product.

"The best made product in the world," according to Dr. Wishart, "will not sell as quickly in a shabby package as it will in a package designed specifically to attract and sell the consumer. Of course, proper packaging cannot be expected to gain the same permanent consumer acceptance for an inferior product as it will gain for a quality product, but at least it will bring the product to the attention of the consumer."

In comparing containers made of glass with those of other materials, Dr. Wishart cited these "unique advantages" which, he said, "competition has been unable to match": relative chemical inertness, impermeability, non-porosity, resealable and re-use qualities, sanitary, and odorless characteristics, strength, moldability, "sterilizability, and, above all, transparency." On this final point, Dr. Wishart stated: "People like to see what they buy—and glass is a material that permits them to do so."

Growth of the billion dollar a year glass container industry, according to the Knox president, will come through increases in population and purchasing power but more than half will result from "technological advances" which will result in the manufacture of stronger, lighter and more universally usable glass — glass that will stand greater thermal shock, or that will not transmit waves that might affect the contents of the container in any way."

pretty, practical, profitable

Leading cosmetics attract more attention and sales when they are capped with Crown Meritseal. On your production line, Meritseal caps spin on smoothly and swiftly. On retail shelves, their sparkling lithography commands attention. At home, their easy removal and efficient re-sealing add to your product's popularity. May we have the opportunity to discuss or provide you with more details?

CROWN

for cans · crowns · closures · machinery

CROWN CORK & SEAL COMPANY, INC., 9300 Ashton Road, Philadelphia 36, Pa.

O-I Expands Plants

Creation of a new plant in North Kansas City, Mo., and expansion of its facilities at St. Charles, Ill., and Glassboro, N. J., for the manufacture of semi-rigid plastic bottles, were announced recently by Owens-Illinois Glass Co., Toledo, O.

The bottles, which were introduced in March 1958, are used by makers of liquid detergents, household cleaners, and other household products, according to Carl R. Megowan, O-I president.

With the establishment of the Kansas City plant, O-I has four plants for producing plastic bottles. The St. Charles and Glassboro facilities have been making plastic containers for household chemical specialties for nearly two years, and the company's international division recently announced plans for a plastic container plant near Toronto, Canada. The Kansas City plant is located at 15th and Iron Sts. adjacent to O-I's paper products division which will supply cartons for plastic containers.

—★—

Foragers Hold Banquet

The 61st annual banquet of the Foragers of America was held Jan. 7 at the Stork Club, New York. The group is an association of salesmen calling on the retail drug and cosmetic trade.

Cosmetic Chemists

(*From Page* 66)

borax. Solutions are stable even when heated.

Measurement of odors and utilization of radioisotopes were among "New Trends in Cosmetic Testing" discussed by Louis C. Barail, consulting biochemist and toxicologist, New York. New instrumentation permits odor classification into 300 degrees of intensity, Dr. Barail reported. Personal and air deodorants and odor contamination of products by unsuitable packaging materials may be successfully handled by this method.

Tracer studies serve to establish among other points the penetration or superficial retention of chemicals by the skin and mucous membranes. The speaker also dealt with bacteriological and toxicological testing methods approved by the FDA.

Dr. Joseph V. Klauder, dermatologist, Philadelphia, spoke on "The Closed, Open, Prophetic and Repeated Insult Patch Tests in Study of Cutaneous Reactions." Purposes of the patch test are: (1) to determine the range of concentration of a given substance that exerts a primary irritant action under test conditions; (2) to determine whether or not the skin is allergic to the substance under test; (3) to ascertain whether the allergic action of a given substance under test conditions suffices to sensitize the skin by repeated or several applications; (4) to establish other undesirable cutaneous reactions.

In a study of the allergenicity of a material the prophetic or repeated insult patch tests are employed, according to Dr. Klauder. The prophetic test comprises two applications. It indicates only primary irritant and allergenic action. The repeated insult test, involves repeated applications, produces the two aforementioned reactions and, in addition, a fatiguing action, irritant action on the follicles, and other untoward cutaneous reactions.

Other papers presented at the meeting included: "The Beauty of the Enzyme Screen." by Dr. V. F. Lisanti, Tufts University School of Medicine; "Dental Calculus," by Drs. Stanley Hazen and Helmut Zander, Eastman Dental Dispensary, Rochester, N. Y.; and "Chemistry of the Inflammatory Response of the Skin," by Dr. J. C. Houck, Childrens Hospital Research Foundation, Wash., D. C.

Salesmen Who Work

(*From Page* 131)

begin educating him to his profit potentials than right on the packages you are selling him?

Which brings me to my last question: What can you do about turning these millions of silent salesmen—these millions of packages—into successful, volume- and profit-producing performers?

Well, the first thing to remember is that a package is a container. It must carry its contents safely, efficiently and attractively from your factory to the wholesaler, to the retailer, to the consumer. Your chemical specialties are mostly in cans or bottles. Their shape or size does not suggest their contents, like a candy bar or a pack of razor blades. Ordinarily you don't see the product, as you would a jar of pickles, or a cellophane-wrapped pair of nylon stockings.

This means it is up to you to tell Mr. Consumer what it is you are selling, and tell it right on the package. "Prestone" and "Zerex" and "Simoniz" have established their images in the consumers mind through years and millions of dollars spent in advertising. One reason other specialties haven't got that far is that their packages are too busy, and carry too much excess fat in unnecessary details.

The simpler you keep your package, the more quickly it registers what it is and what it does in the mind of the consumer. One package that sells itself on sight is "Lenk's Charcoal Lighter." It's a perfect billboard. It shows the charcoal brazier with the flames shooting up, simply and in two colors, red and black, against a clean white background. It tells what it is and what it does. The manufacturer recognized that the picture and the words "Charcoal Lighter" were all he needed to make the sale, so he soft pedalled his name by putting it in outline lettering. I have bought many cans of charcoal lighting fluid, but this one is by far the best package I have seen for this kind of product.

(*To be concluded*)

THE BEST REASON TO TRUST PRECISION WITH YOUR PRODUCT

* 100 BILLION SUCCESSES WITH THIS VALVE

PERFORMANCE-PROVEN ON EVERY TYPE OF PRESSURIZED PRODUCT

On October 18, 1959 at 10:25 in the morning, Precision Valve Corporation produced its one billionth aerosol valve. Ten years of research, study and experience went into its creation and in those same ten years, the aerosol package came of age.

Today, almost any product that can be poured or powdered can be dispensed in an aerosol . . . always dispensed with greater ease and more convenience, usually at less cost.

Precision Valve Corporation's Research Department will be happy to help you build a better package for your product with the valve of proven quality.

PRECISION VALVE CORPORATION

700 NEPPERHAN AVE., YONKERS, N. Y. • ZURICH

** Calculated on the basis of about 100 actuations per aerosol . . . from the 56 uses of an air sanitizer through the 198 times actuated tooth paste container, not including foreign production.*

NEW Trade Marks

THE following trade marks were published in recent issues of the *Official Gazette* of the U. S. Patent Office in compliance with section 12 (a) of the Trade Mark Act of 1946. Notice of opposition under section 13 may be filed within 30 days of publication in the Gazette. See rules 20.1 to 20.5. As provided by section 31 of the Act, a fee of $25 must accompany each notice of opposition.

Lawn Phix—This for preparation for use as an insecticide, herbicide, fungicide, and bactericide on lawn and turf. Filed Sept. 12, 1958 by Chemley Products Co., Chicago. Claims use since Jan. 4, 1958.

Cleaf—This for hand cleansing leaflets. Filed Oct. 28, 1958 by Parachem Corp., Newark, N. J. Claims use since Oct. 8, 1958.

Master Soapy—This for soap. Filed Nov. 17, 1958 by Angelique and Co., Wilton, Conn. Claims use since Nov. 7, 1958.

Inhibisol — This for cleaning and degreasing solvents. Filed June 1, 1959 by Penetone Co., Tenafly, N. J. Claims use since Feb. 10, 1954.

T-H All Plant Spray—This for insecticides and fungicides. Filed Dec. 5, 1958 by Thompson-Hayward Chemical Co., Kansas City, Mo. Claims use since Feb. 17, 1958.

Virodine — This for disinfectant-germicidal sanitary rinse. Filed Feb. 25, 1959 by Basic Chemicals Corp., Sarasota, Fla. Claims use since June 17, 1957.

Delchem—This for industrial and household cleaner and detergent compositions. Filed Oct. 1, 1957 by Pennsalt Chemicals Corp., Philadelphia. Claims use since Aug. 30, 1950.

Tri-Cor—This for solvents and cleaners for hands and metal. Filed May 6, 1958 by Triumph Corp., Baltimore. Claims use since Jan. 22, 1958.

p.d.q. — This for detergent spray cleaner for household use. Filed May 12, 1958 by Jerclaydon, Inc., Clifton, N. J. Claims use since at least as early as Apr. 24, 1958.

Marvelon—This for all purpose liquid cleaner. Filed Oct. 16, 1958 by Edgard L. Knowlton, doing business as Hollis Laboratories, Holliston, Mass. Claims use since Sept. 8, 1958.

Blast—This for cleaning materials — namely detergents and solvents used with ultrasonic cleaning apparatus. Filed Oct. 27, 1958 by Narda Ultrasonics Corp., Mineola, N. Y. Claims use since Apr. 7, 1958.

Vinelab — This for cleaning composition which sanitizes as it cleans. Filed Feb. 5, 1959 by Vineland Laboratories, Inc., Vineland, N. J. Claims use since Sept. 5, 1956.

Jersey—This for soaps and detergents for commercial and industrial use. Filed Apr. 20, 1959 by Penola Oil Co., New York. Claims use since Mar. 19, 1959.

Little Benjy—This for cleaners, solvents and similar chemicals for use in the printing industry, comprising ink solvent for cleaning rollers, printing press blanket cleaner, and leather roller cleaner. Filed Apr. 22, 1959 by Lewis Knox, doing business as Knox Soap Co., Chicago. Claims use since on or about June 15, 1954.

Oilrid—This for preparation for removing oil stains from terrazzo and cement surfaces. Filed June 1, 1959 by Oilrid, Inc., Hollywood, Fla. Claims use since May 27, 1959.

Staco—This for car washing compound. cement floor cleaners, degreasers, floor sweeping compound, hand and machine dishwashing compounds, laundry soaps, wood floor cleaners, wood floor cleaner and polisher, steam cleaning compound, tire cleaner, and toilet bowl cleaner. Filed June 29, 1959 by State Chemical Co., Amarillo, Tex. Claims use since Jan. 15, 1949.

Syndex—This for liquid cleaner for floors, walls, etc. Filed June 15, 1959 by Brulin & Co., Indianapolis, Ind. Claims use since Nov. 15, 1952.

25-I—This for detergent cleaning solution. Filed June 16, 1959 by Bendix Aviation Corp., Detroit, Mich. Claims use since Apr. 20, 1955.

Pack-O-Suds—This for liquid detergents. Filed June 17, 1959 by Britex Corp., Boston. Claims use since July 10, 1950.

Deltro — This for detergent composition for use in food processing plants. Filed June 17, 1959 by Wyandotte Chemicals Corp., Wyandotte, Mich. Claims use since Dec. 26, 1958.

O-Cedar—This for chalk board cleaner. Filed June 19, 1959 by American-Marietta Co., Chicago. Claims use since on or about Apr. 15, 1959.

Marbleous — This for concentrated liquid soap for cleaning floors. Filed June 22, 1959 by Columbia Wax Co., Glendale, Calif. Claims use since June 17, 1953.

Myco-Terge 20—This for laundry detergent used particularly for washing dust mops, dust cloths, or the like. Filed June 30, 1959 by Masury-Young Co., Boston. Claims use since February 1959.

Spur-Tex — This for janitors' supplies, cleaning and polishing materials—namely, waxes and combined cleaning and polishing preparations. Filed Nov. 24, 1958 by Spurrier Paper Co., doing business as Spurriers, Wichita, Kans. Claims use since on or about November 1950.

Meguiar's—This for cleaners, polishes, and finish preservers for use on finshed surfaces including those of automobiles, for cleaning, polishing and preserving the finish. Filed Dec. 16, 1958 by Mirror Bright Polish Co., Pasadena, Calif. Claims use since August 1937.

Sanozone—This for deodorants of the room and household variety. Filed Oct. 16, 1958 by Sanozone Co., Webster Groves, Mo. Claims use since October 1918.

Perma — This for laundry starch. Filed Feb. 9, 1959 by Dumas Milner Corp., Jackson, Miss. Claims use since May 15, 1947.

S. P. D. — This for chemical drain opener. Filed Jan. 2, 1959 by Damon Chemical Co., Alliance, O. Claims use since Jan. 8, 1954.

Peoples — This for floor wax. Filed July 8, 1959 by Peoples Drug Stores, Inc., Washington, D. C. Claims use since at least 1940.

Hi-Foam — This for synthetic detergents, for general, industrial, and domestic use. Filed Nov. 18, 1958 by Maher Color & Chemical Co., Chicago. Claims use since on or about Feb. 15, 1955.

Superfome—This for synthetic detergents, for general, industrial, and domestic use. Filed Nov. 18, 1958 by Maher Color & Chemical Co., Chicago. Claims use on or about Feb. 15, 1956.

Man Trap—This for toilet soap. Filed June 16, 1959 by Colgate-Palmolive Co., New York. Claims use since May 11, 1959.

Speedy Fels — This for detergent for all cleaning purposes. Filed July 8, 1959 by Fels and Co., Philadelphia. Claims use since Apr. 5, 1959.

Peoples — This for soap and shampoo. Filed July 8, 1959 by Peoples Drug Stores, Inc., Washington, D. C. Claims use since about 1945.

Swep — This for insecticides, fungicides, and herbicides. Filed Oct. 24, 1958 by Food Machinery and Chemical Corp., New York. Claims use since May 15, 1957.

Magic Leaf — This for silver cleaner. Filed Apr. 9, 1959 by Paul-Reed, Inc., Charlevoix, Mich. Claims use since June 1952.

Electrolux — This for liquid cleaning compositions. Filed June 5, 1959 by Electrolux Corp., New York. Claims use since March 1947.

Red Panther—This for insecticides. Filed June 11, 1951 by Coahoma Chemical Co., Clarksdale, Miss. Claims use since on or about Apr. 14, 1950.

Brite — This for general purpose cleaner. Filed Nov. 5., 1958 by Franklin Research Co., Philadelphia. Claims use since June 1, 1933.

Lanolin Plus — This for toilet soap and shampoo. Filed Feb. 2, 1959 by National Boulevard Bank of Chicago, assignee of Lanolin Plus, Inc., Chicago. Claims use since Aug. 12, 1942.

Sulpho—This for hand cleaner. Filed Mar. 16, 1959 by West Chemical Products, Inc., Long Island City, N. Y. Claims use since June 24, 1941.

Pink Mist—This for detergent for use in cleaning eyeglasses, windows, windshields, etc. Filed June 3, 1959 by Wilmer A. Warfield, doing business as F & W Food Shopping Center, Washington, D. C. Claims use since Apr. 16, 1959.

★

Natkin Joins Curtis

Sidney J. Natkin has joined Helene Curtis Industries, Inc., Chicago, as a marketing executive, is was announced recently by George M. Factor, vice-president. Mr. Natkin served most recently as vice-president and account supervisor for Gordon Best Co., Chicago advertising agency.

Here is where G. BARR & COMPANY aerosol packaging PAYS OFF!

Here, at the crucial point of purchase—when your aerosol product reaches the hands of the ultimate consumer—the importance of having your private label aerosol made by G. Barr & Company becomes apparent.

It is here that the more than 60 production line inspections and the meticulous quality controls that are routine at G. Barr & Company, pay off!

This assurance that your G. Barr & Company packaged product will reach the hands of the consumer perfectly formulated and packaged is backed by our technical staff of 20 research and product development chemists, by our two plant production efficiencies and by the fact that we maintain the strictest standards of quality in the industry.

If you believe your product deserves the utmost in packaging proficiency—yet at no increase in cost—ask us to outline the many advantages of our service for you.

G. BARR & COMPANY *Private Label Aerosols*

NEW YORK: 4747 Bronx Blvd., FAirbanks 5-7870 • CHICAGO: 3601 S. Racine Ave., YArds 7-1700

PRESSURE PACKAGING

Baer to Sprapak

Jean Warner Baer was recently appointed managing and technical director of Sprapak

Jean Warner Baer

Chemicals, Inc., a new aerosol packaging company which is an affiliate of Trio Chemical Works, Inc., Brooklyn, N. Y. Officers and production facilities of Sprapak are located at 260-262 Meserole St., Brooklyn 4, and its telephone number is HYacinth 7-8221. Mr. Baer left Pennsalt Chemicals Corp., Philadelphia, in December to become a consultant in the aerosol packaging field. At Pennsalt, he was in the "Isotron" propellants department, and prior to that he was with George Lueders, Inc., New York. He also has been associated with van Ameringen-Haebler, Inc., New York.

In a news item about the formation of Sprapak in the December issue of *Soap & Chemical Specialties* the name of the company was misspelled as "Spraypak."

—★—

New Fuld Aerosol Product

A new aerosol product said to combine a deodorizer, disinfectant, and insecticide was recently introduced by Fuld Brothers, Inc., Baltimore. Called "DDI" and available under the company's "Just" tradename, the product is said to remove odors, be germicidal, and control flying insects. Lightly scented, "DDI" is reported to be nontoxic, non-staining, non-caustic, non-corrosive, and non-flammable. It is being distributed through the company's "Just" products division, Associated Just Distributors, Inc., 702 S. Wolfe St., Baltimore 31. Trademark registration has been applied for.

—★—

Unthank Joins Pace

Maurice H. Unthank has joined Pace, Inc., Wilmington, Del., private label and contract aerosol packers, it was announced recently by Ira Wolfson, president. Mr. Unthank was formerly head of the ozone research pilot plant of Welsbach Corp. and also has served as a quality control chemist for the city of Philadelphia, a formulation chemist for Vita-Mix Corp., and a cosmetic chemist for Delaware Valley Laboratories.

—★—

In McKernan Position

Warren M. Stinson was recently appointed office manager and sales correspondent for E. J. McKernan Co., Elgin, Ill. In his new post Mr. Stinson handles all office work in connection with the sale of Seaquist aerosol valves and West Penn aerosol caps and closures.

—★—

Aerosol Lab Grad at ATI

The first graduate student to work at the College of Pharmacy aerosol research laboratory at Columbia University, New York, is now a research chemist with Aerosol Techniques, Inc., Bridgeport, Conn. He is Harvey Mintzer, who has joined the company following completion of studies for a master of science degree. The Columbia aerosol laboratory was constructed through a grant from ATI. Working under Prof. Joseph L. Kanig, Mr. Mintzer devoted most of his time at the aerosol laboratory to the development of pharmaceutical pressurized dosage forms for inhalation and topical use.

—★—

Richards in Colton Post

The appointment of David J. Richards as a sales engineer in the Chicago office of Arthur Colton

David J. Richards

Co., Detroit aerosol filling equipment manufacturers, was announced last month by W. A. Doepel, sales manager. Previously an industrial sales engineer for several Chicago firms, Mr. Richards handles sales of Colton-Alpha aerosol filling machines and Colton-Hope filling machines as well as Colton Packaging, chemical, and pharmaceutical industry equipment. He covers central Chicago, northern Illinois, Wisconsin, Minnesota, Iowa, and Nebraska from the company's district office at 5807 West Diversey, Chicago 39.

—★—

Herzka Aerosol Consultant

Alfred Herzka, former head of aerosol development for The Metal Box Co. operation at Alperton, Middlesex, England, and co-author of "Pressurized Packaging (Aerosols)" published early last year, recently established an independent practice as an aerosol consultant. Until his firm is formed and an aerosol laboratory completed, inquiries should be addressed to Mr. Herzka at 54 Wood-

Improving aerosol techniques thru basic research

Advancing the aerosol idea thru clinics and seminars

Guiding prospects to profits thru market surveys

Probing client problems thru Du Pont facilities

Supplying on-the-spot aid thru technical service

Du Pont serves you best!

Round the clock . . . coast to coast . . . able hands, expert minds and modern equipment assist FREON® users in developing, producing and marketing aerosols.

You get more than a premium-quality propellent when you buy Freon*. . . *far* more. For Du Pont provides the most comprehensive customer services in the industry.

DEVELOPMENT—Du Pont has skilled scientists to help directly with your product-improvement projects. The facilities of the "Freon" Sales Service Laboratory are available to assist with your problems. The laboratory team also develops improved formulations and techniques and donates the results to the aerosol industry.

PRODUCTION—Du Pont know-how and experience come to you wherever you are, whenever you need help on production techniques or problems . . . through a large team of technical representatives. Your Du Pont service engineer is trained to help you cut costs, too. Call him any time.

MARKETING—Du Pont regularly conducts surveys, clinics, and seminars to bring you up-to-date market information on aerosols. And Du Pont national advertising promoting the aerosol packaging idea helps assure you a steady flow of new customers.

To take advantage of any of these valuable sales-building services, just call or write the Du Pont office nearest you. Be sure to buy "Freon"—recognized throughout industry for quality, performance and superior properties—for *all* your propellent needs. You'll get virtually local delivery from three plants and a country-wide network of warehouses.

E. I. du Pont de Nemours & Co. (Inc.)
"Freon" Products Division 311, Wilmington 98, Delaware

BRANCH OFFICES

40 Worth Street	7 S. Dearborn Street	701 Welch Road
New York 13, N. Y.	Chicago 3, Illinois	Palo Alto, California

FREON®
PROPELLENTS

DU PONT
REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

**Freon and combinations of Freon- or F- with numerals are Du Pont's registered trademarks for its fluorinated hydrocarbon propellents.*

lands, London N.W. 11, England. Widely known in Europe for his work in aerosol research, he has worked closely with the chemical industry for the past 14 years. His book, written with Jack Pithall of the Polak & Schwarz (England) division of International Flavors and Fragrances, Inc., New York, was the first technical book devoted exclusively to aerosols. Mr. Herzka visited the United States last year and conferred with aerosol fillers and suppliers.

—★—

Michael Coppola Dies

Michael J. Coppola, 55, a sales representative for the "Freon" Products Division of E. I. du Pont de Nemours & Co., Wilmington, Del., serving principally aerosol accounts in the New York City area, died suddenly of a heart attack on Dec. 8 at the Mayflower Hotel, Washington, D. C., during the 46th annual meeting of CSMA. Mr. Coppola was playing cards in the suite of the Continental Can Co. when he succumbed.

He began his career in 1917 when he joined Monsanto Chemical Co. as a clerk. Two years later he went with Rhodia Chemical Co., New York aromatics firm, which was acquired by the Newport Chemical Co. in 1929. Du Pont purchased Newport in 1931 and integrated it into its organic chemicals department. Under Newport, Mr. Coppola was a photographic chemicals salesman, a field he served until 1942 when he was assigned to aromatics sales for Du Pont's dyes and chemicals division in New York. In 1953, when the company disposed of its aromatics business, he became a sales representative for the "Freon" Products division.

Mr. Coppola is survived by his widow, Michelina and two daughters, Mrs. Marilyn Boehl and Arline Coppola.

—★—

New Kartridg-Pak Reps

The appointments of George McAteer as eastern sales and service representative and Jack Jecker as southeastern sales and service representative for the Kartridg-Pak Co., Franklin Park, Ill., were announced last month by George W. Heath, general manager. Mr. McAteer was eastern representative with the company's Davenport, Ia., division for eight years, and now covers New York, New England, and central and eastern Canada. Formerly eastern service representative, Mr. Jecker has been with Kartridg Pak and Mojonnier Associates seven years.

George McAteer

Jack Jecker

—★—

In Tube Manifold Post

The appointment of John D. Amoroso as plant manager for Tube Manifold Corp., North Tonawanda, N. Y., was announced recently by Clark D. Matthews, president. Mr. Amoroso has had 20 years experience in engineering and plant management posts. The company, which fabricates tubular products, also produces cylindrical disposable containers for packaging liquids and gases for household and industrial use.

John D. Amoroso

—★—

Aerosols in Europe Report

Despite a steady advance in production, aerosol products in Europe have not had the impact on consumers that they have had in the United States, Sylvan Lefcoe, president of Par Industries, Inc., Los Angeles aerosol filler, reported recently. He had just returned from a five week tour of aerosol plants and marketing outlets in Europe.

Mr. Lefcoe doubted that there would be any competition in the United States from aerosol products manufactured abroad. But he did predict that some aerosol products would be packed in the U. S. in new aluminum seamless cans and super-size containers made in Europe.

Many novel shapes in metal containers and coated and uncoated glass bottles for aerosols were observed by Mr. Lefcoe in Europe. Among several reasons cited by Mr. Lefcoe for the lagging popularity of aerosols abroad is the scarcity of supermarkets as we know them; lack of sales promotion for aerosols and of education of consumers in their use; a conservative attitude among Europeans toward aerosol products; and the high cost of these products in relation to other household necessities. Actual prices of European aerosols are comparable to U. S. pressure packages.

Plastic-coated glass makes the ideal pressure package

Only Owens-Illinois pressure packages have this bond of plastic to glass

THE PLASTIC IS MORE THAN a jacket around the bottle in an Owens-Illinois pressure package . . . it's bonded to the glass as a part of the container itself. It won't peel off.

This permanent bonding of plastic and glass gives you a tough and handsome package which will never alter your product. For glass is inert to chemicals . . . is flavorless and odorless . . . and keeps what it contains at peak of effectiveness.

These colorful and sturdy Owens-Illinois pressure packages come in a variety of shapes and sizes. Choose from a wealth of stock containers, or let O-I create a new design just for you.

Every O-I container can be permanently decorated with Applied Color Lettering.

DURAGLAS CONTAINERS
AN (O) PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES · TOLEDO 1, OHIO

Aerosol Sales Potential

By A. H. Lawrence, Jr.*

"Freon" Products Division
E. I. du Pont de Nemours & Co.
Wilmington, Del.

IN the next ten years, four times as many nonfood aerosols – about eight billion – will be produced and sold as in the last ten years. And although food products now represent less than 20 per cent of the total pressure-packaging market, they may become the single largest growth area in the next decade. This is the forecast of du Pont market researchers who foresee a continuation of past aerosol industry successes.

There are many reasons for our optimistic forecast. First, we have considered the predicted growth of the U. S. market, the people who make it up – their number, income and ability to spend. Even this year, new records are being made in United States economic activity. Last year's recession is fast becoming a mere unpleasant memory. Measures of industrial production, personal income, retail sales and employment are setting new highs. And some day the steel strike *will* be settled.

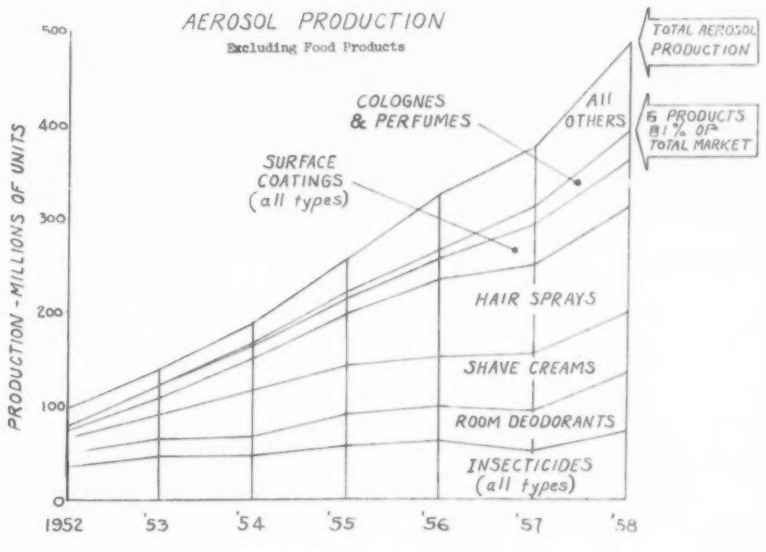
By year-end the gross national product – total output of goods and services–is expected to hit $480 billion, or eight and a half per cent higher than last year's estimated total of approximately $442 billion. Economists say that by 1968 our gross national product is expected to be about 40 per cent greater than that of 1958, based on a constant price level.

Personal and discretionary incomes are expected to increase generally as they have in most post-World War II years. The total population of the United States, including Armed Forces overseas, was nearly 177 million on June 1 of this year. New projections released by the Bureau of the Census suggest that there may be as many as 96 million more people in the United States in the next twenty-one years. The 18 to 24 year old age group will increase noticeably after 1964 when the bumper baby crop of the early postwar years begins to graduate from high school. This is the age group within which most families are formed, since most women marry and have their first child during this period. According to the U. S. Bureau of the Census, marketing men can expect the number of households to increase from 51 million in 1958 to 58 million in 1968.

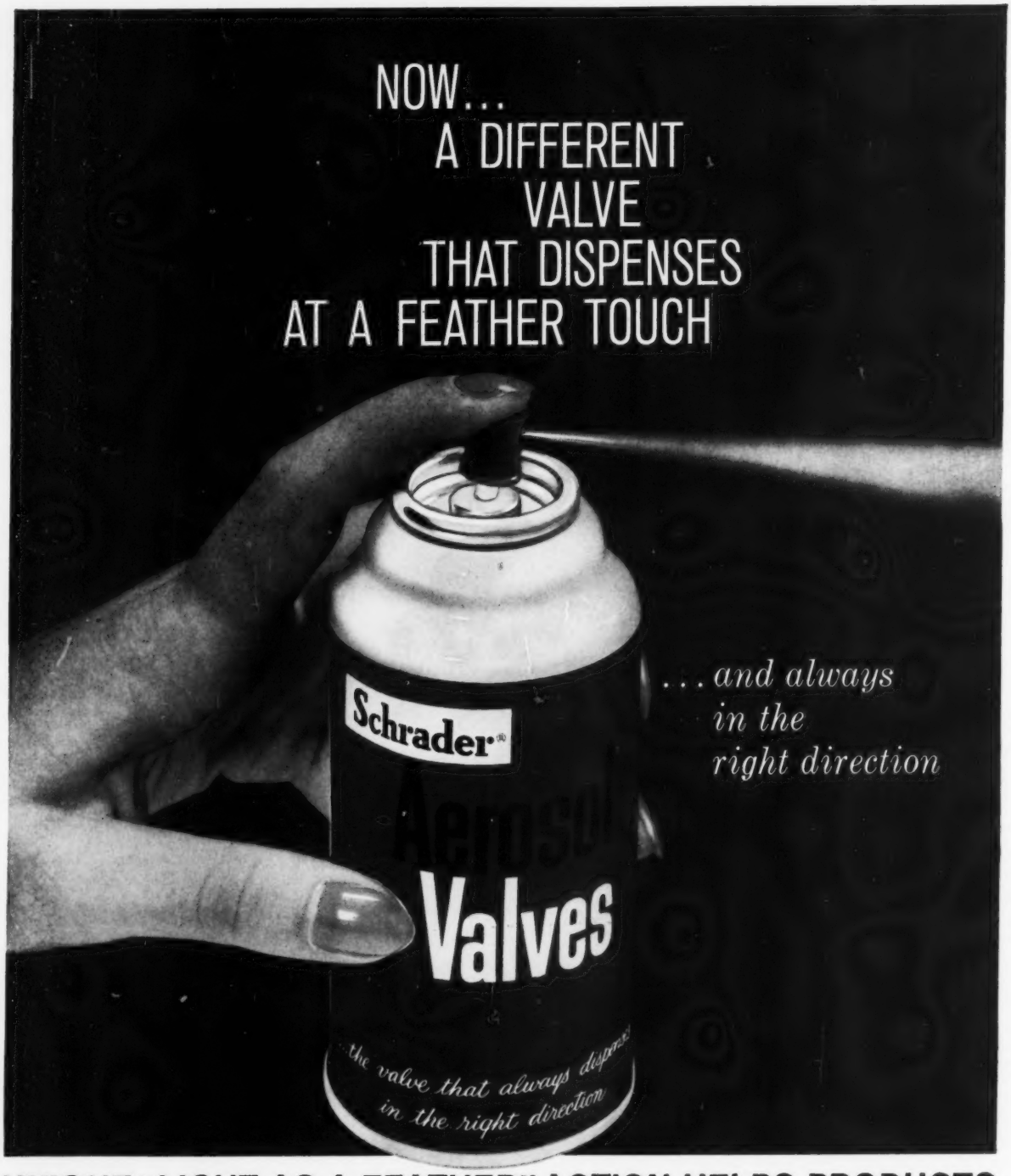
The teen-age market, which is growing yearly, has been described by one sociologist as a group of trainees. In 1944 teen-agers had incomes of approximately $2.50 a week. Today it is about $10.00. By the end of this year, the 17 million teen-agers will have spent over $9.5 billion of their own money, apart from what their parents spend on them. By 1965 some 24 million of them will be spending $14 billion. About a third of their income is from earnings, the rest from allowances.

The aerosol industry was born in this expanding postwar economy. Our annual market studies, begun in 1947, have carefully measured the growth of distribution of aerosol products at the retail level. We have also kept a close watch on consumers' knowledge, use and opinion of various aerosol products. Aerosol packaging has now reached the point

Table I



*Paper presented at 46th annual meeting, Chemical Specialties Manufacturers Association, Washington, D. C., Dec 8, 1959.



UNIQUE "LIGHT-AS-A-FEATHER" ACTION HELPS PRODUCTS GAIN CUSTOMER ACCEPTANCE

Schrader®
a division of SCOVILL

Aerosol Valves

A. SCHRADER'S SON
Division of Scovill Manufacturing Company, Inc.
470 Vanderbilt Avenue, Brooklyn 38, N. Y.

where better than eight out of ten households are buying some product in this form.

With the help of Chemical Specialties Manufacturers Association's Aerosol Product Survey Committee reports, our marketing analysts have charted production growth during the last seven years as shown in Table I.

Over-all nonfood aerosol production has increased at an average annual rate of 31 per cent during the last seven years. Certainly this growth rate is one of the highest in all industry. The electronics industry, often thought of as a leader in expansion, is growing only at a rate of eight per cent annually. The gross national product has been increasing at an average rate of 3.5 per cent per year.

You will recall that insecticides predominated the early years of production, 1946 through 1951. By the end of 1958, the aerosol market had expanded to encompass six principal products and over one hundred other products. These six products – insecticides, room deodorants, shave creams, hair sprays, surface coatings, and colognes–accounted for 81 per cent of the 1958 total production of 485 million nonfood packages.

Reasons for Success

In addition to recognizing the growth rate to date of the aerosol industry, our market analysts are fully aware of the reasons why the aerosol package has been so successful. Here are some of them:

1. The very manner in which the propellant works in true aerosol products has had a lot to do with their success. By industry definition, aerosols are products powered with a compressed, liquefied gas propellant, such as the "Freon" (du Pont) fluorinated hydrocarbons. This means that in an aerosol container there is always a reservoir of propellant to maintain a uniform dispensing pressure. Therefore, the product being dispensed has uniform characteristics and the container empties itself completely.
2. Each product is considerably more convenient to use than its nonaerosol counterpart.
3. Other advantages of aerosol packaging, such as quicker results and protection of product from contamination, oxidation or evaporation, have contributed to high consumer acceptance.
4. Sales of each aerosol product have been significantly stimulated by the entry of one or more major marketers employing wide distribution and extensive advertising. I don't think it is a mere coincidence that the large growth to date of the major household and personal aerosol products has occurred at a time when the percentage of wired homes with television sets was increasing from 50 per cent in 1952 to 89 per cent in 1958. The increase of TV coverage and aerosol advertising on TV has undoubtedly contributed to the success of aerosol products. And more marketers in the future will become aware of the unique value of TV as an advertising medium in showing consumers how an aerosol product works and what it does for them.

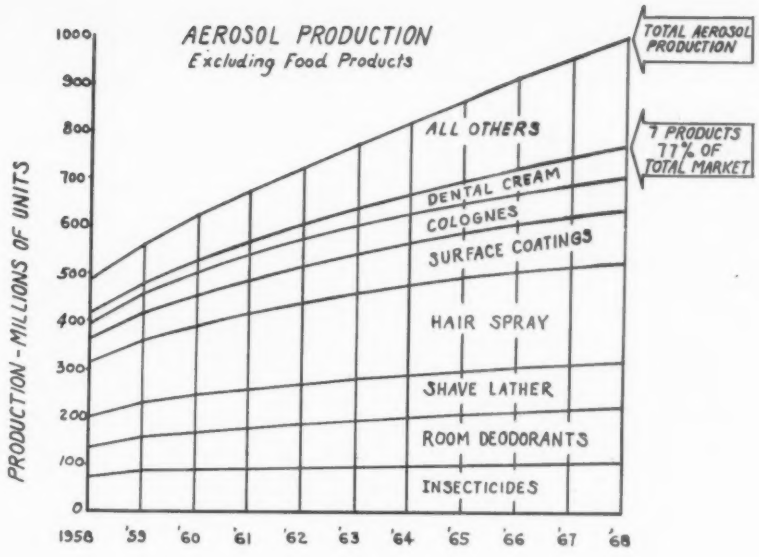


Table II

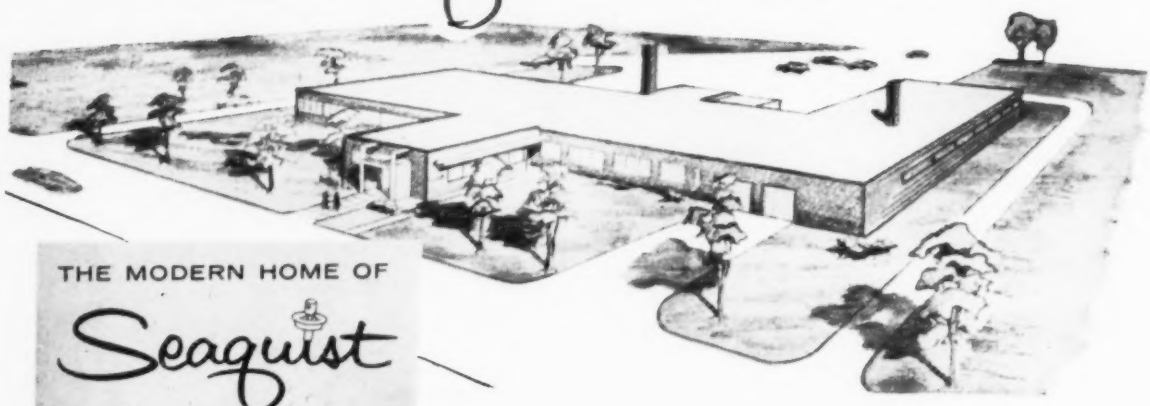
Nonfood Market Potential

Having considered the factors influencing the potential for the nonfood aerosol market–predicted growth of the U.S. market in general, the unprecedented expansion rate of aerosol production to date, and reasons for the success of the aerosol package–here is our forecast of nonfood aerosol production and sales for the next ten years, including 1959.

We are predicting that within a decade nonfood aerosols will be selling at the rate of at least one billion a year. The average annual production rate should increase seven and one-half per cent per year during these ten years. Sales of today's principal products will continue to expand, and together with sales of dental cream they should again dominate the 1968 production makeup. Sales of "all other" aerosol products will include those of glass cleaners, shoe or leather dressings, and polishes, plus medicinals and pharmaceuticals. Any one of these product categories, or new products, could be developed to achieve a major breakthrough in the aero-

(*Turn to Page* 207)

SEE Seaquist FOR BETTER AEROSOL VALVES!



THE MODERN HOME OF
Seaquist
AEROSOL VALVES

ANOTHER
Seaquist
FIRST!

☆ **The Sea-Spray S.A. Valve that sprays in any position!**

☆ Upright or upside down. No gas loss.

☆ Ideal for polishes and waxes, ant and roach sprays, garden sprays, hair sprays, sun tan spray, paints, foot sprays, etc.

☆ The S.A. valve is adapted to the world tested sea-spray valve.

☆ Please write, phone or wire for free samples for your product.

A PIONEER IN SMC AEROSOL VALVES

Seaquist MANUFACTURING CORPORATION
CARY, ILLINOIS

QUALITY AEROSOL VALVES SINCE 1948

CONTRACT FILLING / PRIVATE LABEL GUIDE

METERED SPRAY AEROSOL SPECIALISTS

Exclusive, specially designed equipment for fast production of all metered dispensers.

RESEARCH to develop the right product

QUALITY CONTROL to make the package marketable

PRODUCTION to handle small and large volume of all type Aerosol products

Make it a point to talk to "AERO-CHEM" first

quality AEROSOL PACKAGING service.

AERO-CHEM fillers, inc.

1983-A State St. Ext., Phone: EDison 3-4181

BRIDGEPORT 5, CONN.

SINCE 1946

FLORIDAS' OLDEST CONTRACT PACKAGER

Your product can be packaged in America's fastest growing market AT NO COST TO YOU. The freight saved usually pays the bill.

COMPLETE FACILITIES FOR MANUFACTURING, PACKAGING, STORING, AND SHIPPING LIQUIDS, POWDERS, CREAMS.

LONG OR SHORT RUNS

AVERIL, INC.

6780 N.W. 37th Court, Miami 47, Florida

---

complete plants to serve you!

G. BARR & COMPANY

PRIVATE LABEL AEROSOLS

Enjoy the advantage of G. Barr & Company multiple plant operation and packaging know-how. Unsurpassed research, production and shipping facilities. No finer service available. Contact our nearest plant.

CHICAGO
3601 S. Racine
YArds 7-1700

NEW YORK
4747 Bronx Blvd.
FAirbanks 5-7870

AEROSOL PACKAGING *to fit* **YOUR PRODUCT**

• No minimum run required and no maximum limit! Rigid quality control is maintained on all production, contract filling or custom packaging.

CHASE PRODUCTS CO.

Maywood, Illinois

PRIVATE LABEL
or CONTRACT BLENDING

Powdered or Liquid

INDUSTRIAL PRODUCTS

including

Warehousing, Shipping

* * *

FORMULA DEVELOPMENT

ESBEC Chemical Div.

P. O. BOX 929 • STAMFORD, CONN.

DAvis 5-3555

GARD **A COMPLETE AEROSOL SERVICE**

Product Development
•
Cold or Pressure Filling
•
Short and Long Runs
•
Warehousing
•
Marketing
•
Merchandising

FOR FOOD, DRUGS, PAINTS AND CHEMICAL SPECIALTIES

GARD now offers the most complete, most modern filling facilities in the industry for all aerosols from food to paint. Minimum production runs — as low as 1,000 cans to 1,000,000 and up! Air-conditioned, humidity controlled throughout.

GARD INDUSTRIES, INC.
Northfield, Illinois

MARCH WITH MARCH

AEROSOL SERVICE AT ITS BEST
PRODUCTION RUNS FROM 1000 UP
PRODUCT DEVELOPMENT
COLD OR PRESSURE FILLING
CONSTANT CONTROL

PHARMACEUTICALS, INSECTICIDES, DEODORANTS, COSMETICS, SHAVE CREAMS, TOOTH PASTES, INDUSTRIAL & HOUSEHOLD PRODUCTS

MARCH MANUFACTURING CORP.

DIVISION OF
MAYO PHARMACEUTICAL CORP.
1700 W. 68th Ave. Phila. 26, Pa.
Livingston 8-2254

CUSTOM COMPOUNDING REACTING & PACKAGING

In Large or Small Containers — Either Private Labeling or Contract Blending

Liquids, Powders or Pastes for shipment via rail, water or truck.

The only West Coast Company that can give you both researching, quality control, production and warehousing, with services available also in Mexico, Japan and Europe.

Eliminate freight costs, delays in shipment by having your product manufactured in one of the greatest consumer's markets in the U. S.

Please Contact Mr. Adrian

NATIONAL RESEARCH & CHEMICAL CO.
12520 Cerise Ave., Hawthorne (Los Angeles), Calif.

STANDARDS MAINTAINED • FORMULAS PROTECTED • QUALITY AEROSOLS

PRIVATE LABEL and CONTRACT AEROSOL PACKAGING

Production Runs • Sample Runs
Product Formulations
(over 100 use-tested formulas on hand)

PACE INCORPORATED

P.O. BOX 206 • Wilmington 99, Del.
EAst 8-4151

PETERSON

fills both

LIQUIDS AND AEROSOLS

•

PETERSON FILLING and PACKAGING COMPANY

DANVILLE, ILLINOIS
Phone: HIckory 2-1400

QUALITY & SERVICE IN AEROSOL CUSTOM FILLING...

STALFORT
PRESSURE-PAK CORP.

321 W. PRATT ST., BALTO. 1, MD.

YOUR ADVERTISEMENT

in this space would reach prospects for custom filling service from coast to coast for only

$20 per month

Complete
AEROSOL SERVICE
Small Runs Solicited
Insecticides, Deodorants, Tooth Paste, Shave Cream, Cosmetics, Toiletries, Household & Industrial Products, Powders, Colognes, Plastic Sprays, etc.
● Experts in formulation and development ● strict quality control ● ample storage ● pressure and "COLD FILL" lines ● samples and experimental work at no charge ● special plan for companies requiring national distribution.
Write or phone for details—no obligation
SUN-LAC, INC.
274 Lafayette St. ● Newark 5, N. J.
MArket 3-7727

Thomasson
of PA., INC.
AEROSOL FILLING
for Private Label Marketers
Also Liquid Filling
Complete research and laboratory facilities
Constant quality control
Norristown, Pa. BRoadway 5-4355

CALIFORNIA'S
PROGRESSIVE
AEROSOL FILLER
Compare our
★ PRICES
★ QUALITY
and CONFIDENTIAL SERVICE
WESTERN
FILLS ALL PRODUCTS
WESTERN FILLING CORPORATION
6423 BANDINI BLVD., LOS ANGELES

Consolidation at ATI

Consolidation of warehousing, receiving and shipping operations of Aerosol Techniques, Inc., Bridgeport, contract packager and aerosol loader, in newly-leased facilities near the company's main plant was announced recently by H. R. Shepherd, president. Combined areas of the firm's operations now total 120,000 square feet with the new facilities. The new ATI warehouses have a railroad siding and truck loading docks and are located about a half-mile from the company's main plant. The consolidation marks the third in a series of expansions begun by the company over 15 months ago when ATI relocated its central offices and research-development laboratories including a pilot plant and established a new aerosol pharmaceutical manufacturing center.

—★—

ATI's British Visitors

Lord Kirkwood of Bearsden, director of Imperial Smelting Corp., Ltd., London, accompanied by W. J. Carter, in charge of chemical sales for Imperial, recently got a close-up view of aerosol production in the U. S. when they visited the plant of Aerosol Techniques, Inc., Bridgeport, Conn., contract loaders. Imperial Smelting supplies "Isceon" aerosol propellant to Midland Aerosols, Ltd., with which Aerosol Techniques is associated in Great Britain.

The two British executives were guests of H. R. Shepherd, president of ATI, who conducted them on a tour of his company's pressure-packaging and laboratory facilities.

—★—

New Tube Manifold Rep.

Arthur K. Johnston of Portland, Ore., was named sales representative last month for Tube Manifold Corp., North Tonawanda, N. Y., manufacturers of disposable metal aerosol containers. Mr. Johnston covers Oregon, Washington, Idaho and the Canadian provinces of British Columbia and Alberta. One of Tube Manifold's most recent developments is a spherical metal disposable container for working pressures of up to 1,750 p.s.i.

—★—

Mfrs.' Agents Service

A four-page brochure was recently published by Albee-Campbell, Inc., New Canaan, Conn., describing the firm's services in providing manufacturers with sales agents for any territory in the U.S. or Canada. The firm, organized in 1938, describes itself as a "clearing house for manufacturers' agents" with complete files on more than 22,000 individual agents and organizations. Copies of the brochure may be obtained from the company.

SCREW on TOP
for GLASS and METAL
AEROSOL CONTAINERS
Used to make refillable glass and metal Aerosol Containers
Will fit coated and uncoated bottles. If you have a special bottle send a sample to make sure of fit.
FULL LINE OF LAB EQUIPMENT
BUILDERS' supplies complete laboratory set-ups, including laboratory pressure fillers, drill press capping machines, liquid transfer apparatus, can piercing pressure testing apparatus, constant temperature water baths, dry ice coolers, cabinets, formica top tables, tanks and tank racks, etc.
WRITE FOR FREE ILLUSTRATED LITERATURE
BUILDERS SHEET METAL WORKS, Inc.
108 WOOSTER STREET NEW YORK 12, N. Y.
CAnal 6-5398

AEROSOL PATENTS

No. 2,914,222. Aerosol Package, patented by Philip Meshberg, Fairfield, Conn. A package for aerosol products comprising a housing having a fixed member provided with a bore therein forming a passage communicating with a dispensing nozzle, an aerosol container having therein fluid under pressure slidably mounted in said housing and having a projecting valve stem at one end adapted to fit into said bore, said stem saving a passage communicating with said container having means for receiving finger pressure to be applied thereto to cause said container to be moved toward said fixed member and said valve stem to be moved into said container to cause the fluid in the container to be dispensed therefrom and through said nozzle, and means on the housing cooperating with the container to prevent inadvertent operation thereof.

Nos. 2,911,158 and 2,911,159. Aerosol Can Spray Heads, patented by James A. Doyle, Baltimore, assignor of twenty-four and one-half per cent to Henry L. Wingo, Kingsville, Md., and twenty-four and one-half per cent to Vernon Caldwell, Baltimore.

No. 2,911,158 claims in an aerosol spray head for an aerosol spray can, a die cast body comprising a disc-like portion, and intermediate column-like portion and a generally cone shaped upper portion, a die cast dish-shaped cap complementing said body and associated with the base of said cone-shaped upper portion, the axis of said cone-shaped portion being generally transversely disposed with respect to the general axis of said column-like portion, said column-like portion being generally in the shape of a triangular prism with the apex of its triangular section facing in the same general direction as the projected apex of said generally cone-shaped upper portion, said disc-like lower portion having a diameter greater than the altitude of the triangular section of said intermediate column-like portion, said lower portion having an extending part adapted to be associated with the margin forming a hole in the top of an aerosol can, said upper portion being formed with a spray orifice, interior walls forming a valve chamber, a valve in said chamber for controlling said spray orifice, an annular slot formed in said valve to form at least a portion of a metering chamber, interior walls in said lower portion and said intermediate portion forming a passage leading from the bottom of said lower portion through said intermediate portion to said metering chamber, said valve having walls for controlling said passage leading to said metering chamber.

No. 2,911,159 covers in an aerosol spray head for an aerosol spray can, a die cast body comprising a disc-like lower portion, an intermediate column-like portion and a generally cone shaped upper portion, a die cast dish-shaped cap complementing said body and associated with the base of said cone shaped upper portion, the axis of said cone-shaped portion being generally transversely disposed with respect to the general axis of said column-like portion, said column-like portion being generally in the shape of a triangular prism with the apex of its triangular section facing in the same general direction as the projected apex of said generally cone shaped upper portion, said disc-like lower portion having a diameter greater than the altitude of the triangular section of said intermediate column-like portion, said lower portion having an extending part adapted to be associated with the margin forming a hole in the top of an aerosol can, said upper portion being formed with a spray orifice, interior walls forming a valve chamber, a valve in said chamber for controlling said spray orifice, means for operating said valve, interior walls in said lower portion and said intermediate portion forming a passage leading from the bottom of said lower portion through said intermediate portion to said valve chamber.

No. 2,908,650. Pressurized Shaving Cream Compositions, patented by Norman Fine, South Ozone Park, N. Y., assignor to Colgate-Palmolive Co., Jersey City, N. J. Described is a foaming shaving cream composition packaged in a suitable pressure container provided with a dispensing valve which comprises water soluble soaps of higher fatty acids as a detergent, said water soluble soaps comprising sodium and potassium soaps and soaps of nitrogen-containing bases selected from the group consisting of triethanolamine and ammonium soaps, there being at least 3.5 times as much by weight of potassium soap as sodium soap and the ratio of said soaps of nitrogen containing bases to the sum of said sodium and potassium soaps being within the range of about 1.2 to about 2.5, at least one liquefied normally gaseous low molecular weight halogenated hydrocarbon propellant, and an aqueous solvent medium for said detergent in which said propellant is or can be readily dispersed by simple shaking prior to discharging the contents through said valve as a foam product.

No. 2,908,334. Process and Apparatus for Generating and Discharging Foam, patented by James J. Duggan and Elias W. Hain, Charleston, W. Va., and George C. Haettinger, Indianapolis, assignors to Union Carbide Corp., New York. In apparatus for generating and discharging fire extinguishing foam, the claim covers the combination of a container for holding a foam generating solution consisting of water and a foaming agent, and a halogen-containing hydrocarbon propellant present in both the liquid and gaseous phases, the halogen-containing propellant liquid phase being substantially immiscible with and of greater density than the foam generating solution; valve means and an eductor tube in said container for discharging the foam; orifice metering means for passing the foam generating solution and the gas phase propellant into the eductor tube at proportional rates sufficient to generate such foam; and means comprising a sight gage containing an indicator ball, such gage being positioned in the container wall for determining the liquid level of the propellant in said container.

No. 2,914,224. Valve Assembly for Pressure Containers and the Like, patented by David Daniel Michel, Chicago. This patent claims a valve assembly for a dispenser having a flanged aperture or the like comprising an elongate resilient valve seat having a longitudinal passageway therethrough, said valve seat engaging the periphery of an aperture in such dispenser in fluid-sealing relationship, said valve seat having an annular recess, said periphery of said disperser aperture comprising a flange adapted to engage said valve seat annular recess and interlock therewith, nozzle means receivable in said valve seat passageway and having an internal passageway running the length thereof, plug means formed integrally with said nozzle means and closing one end of said nozzle passageway, said nozzle means being transversely apertured adjacent said plug means, an annular shoulder formed integrally with said nozzle means, and locking collar means of flared configuration having one circumferential edge of substantially the same diameter as said nozzle means abutting against said annular collar and having a second circumferential edge for wedging the end of said valve seat inwardly into tight engagement with the peripheral portion of said nozzle means adjacent said shoulder, said valve seat being compressed between said locking collar and said plug whereby said plug means engages the lower end of said valve seat in fluid-sealing engagement in the normal position of assembly, said nozzle means being tiltable whereby a portion of said plug means may be removed from said engaged valve seat end.

No. 2,907,358. Tooth Powder Containers, patented by John C. Armstrong, Salem, Mass. Patented is a dispensing tooth powder container comprising, in combination, a pressurized container body and a dispensing head carried by said container body, said dispensing head having a discharge chamber the outer portion of which is substantially rectangularly shaped to receive and enclose reasonably snugly the bristles of a tooth brush in spaced relation to the inner portion of said chamber, said container being provided with a passage from the interior of the container body to the inner position of said chamber through an orifice, and valve means actuated by said dispensing head for spraying tooth powder from said container body through said orifice and applying said tooth powder simultaneously to the entire bristle area of said brush.

A new Schimmel product

Bouquet for Aerosol
S7738 . . . $5.75 lb.

A modern well rounded
perfume blend with
floral overtones.
Very versatile . . .

Excellent in room sprays
and a variety of other
aerosol products.

Write on your firm's letterhead for a sample.

schimmel **& co., inc.**
601 west 26th street, new york 1, new york

Production...

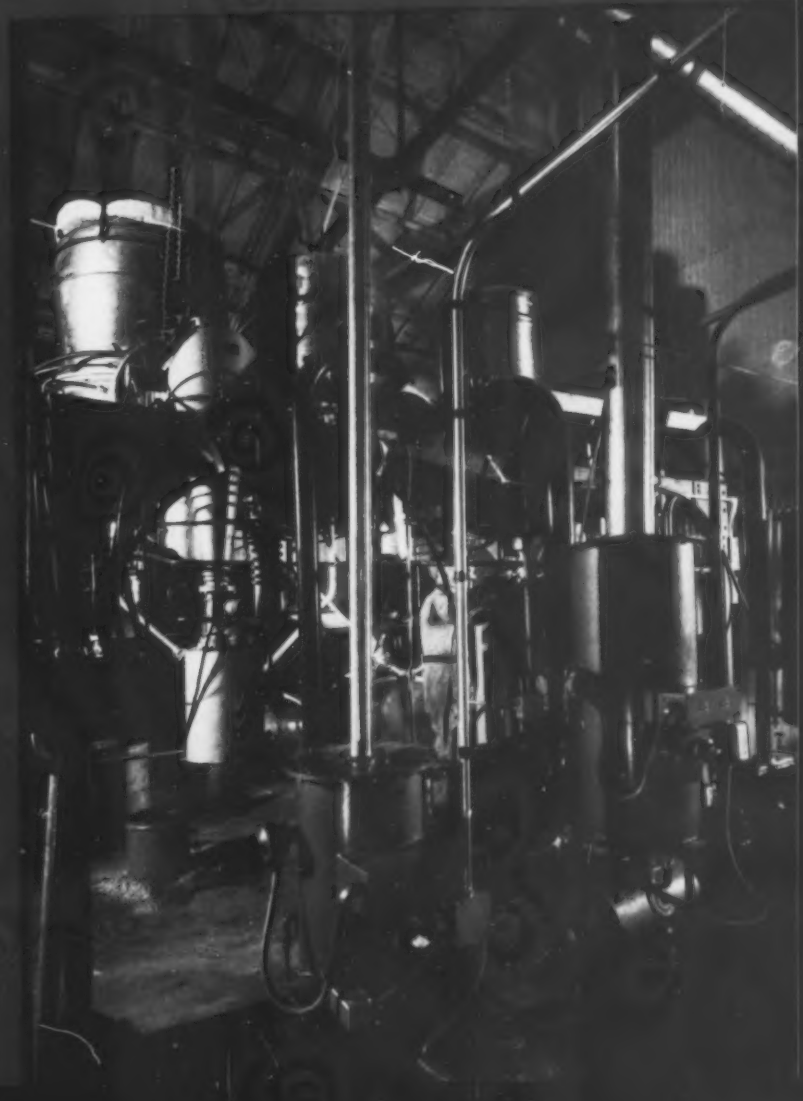
EQUIPMENT · MATERIALS · PROCESSING

"Specialties Plant Efficiency"

New Patents

Soap Plant Observer

Bulletins & Equipment



Completely automatic three still, high vacuum fractional distillation unit for refining pyrethrum extract at Newark, N. J., plant of Prentiss Drug & Chemical Co., New York. See details on p. 180.

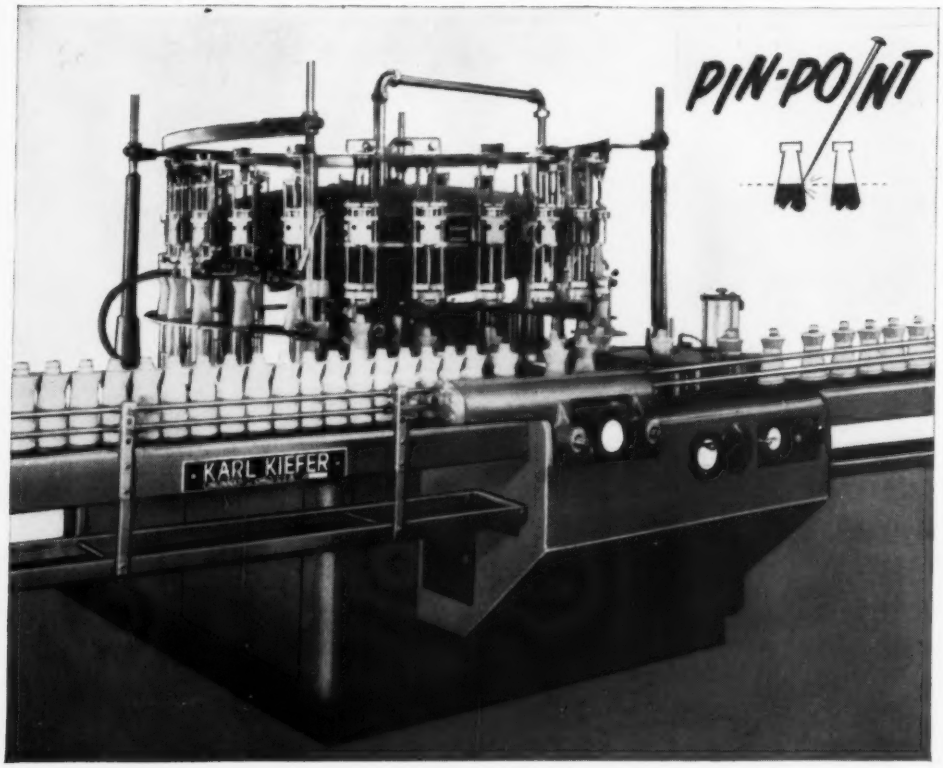
KARL KIEFER

proudly, confidently, yet modestly, presents a great

NEW DEVELOPMENT

This tremendous achievement is available on KIEFER
time-proved and internationally recognized

FILLING MACHINES



KIEFER
"PIN-POINT"
FILLERS
•
COMPRESSED
AIR CLEANERS
•
KIEFER
"Gas-Jet"
AEROSOL
CHARGERS
•
VOLUMETRIC
VARI-VISCO
FILLERS

With this STARTLING "PIN-POINT" STEM, you can fill containers WITHOUT the use of a SEAL. The accuracy is amazing. That precisely means on GLASS or PLASTIC bottles, F style or No. 10 tins. When liquid reaches the predetermined "PIN-POINT" level—the flow is automatically cut off. In 8 to 48 stem fillers.

This patent applied for—MIRACLE INVENTION—has moved Kiefer sales to a well deserved high.

Any speed you want on a Kiefer Pressure-Vacuum Rotary Filler—you name it. Please tell us your problems—we are ready and eager to give you the facts.

The Karl Kiefer Machine Co.

923 MARTIN STREET CINCINNATI 2, OHIO

NEW YORK • BOSTON • CHICAGO • SAN FRANCISCO • PHILADELPHIA • TORONTO
HOUSTON • VANCOUVER • SAVANNAH • LOS ANGELES • LONDON, ENGLAND

Specialties Plant Efficiency

By Julius A. Neuberger* and Herbert L. Green
Brulin & Co.
Indianapolis

THE production of chemical specialties has many unique phases and problems not encountered elsewhere in the chemical industry. However, the basic aims of the production department in the chemical specialties field are the same as in all manufacturing businesses—namely, the fast output of uniform products at the lowest possible cost.

The efficient manufacturing operation has high productivity—it makes the required products with a minimum of material handling, and a minimum of labor, thereby contributing its share toward bigger company profits.

The efficient production department is a direct aid to sales. It has the capacity to keep up with shipping even during the busiest days of the year. It has the flexibility to take care, within limits of course, of emergency orders and special products on 24 or 48 hours notice without disrupting normal production.

The efficient manufacturing department produces a uniform product at all times and does its share toward establishing its company as a quality house.

Manufacturing of chemical specialties, of course has certain characteristics that are not found in all other types of businesses.

1. The chemical specialties company manufactures a myriad of products. In many cases the number runs into the hundreds and even thousands.

2. Its processes are generally of the batch type variety.

3. The chemical specialties firm must make special products either because the customer demands them (and the customer must be satisfied) or more legitimately, because none of the products in the regular line do the specific job required.

4. The manufacture of certain products such as floor waxes require unique processing and handling.

5. Finally, though there are seasonal trends, the chemical specialties company produces and sells the year around, and does not suffer the discomforts and disadvantages that go with the production of seasonal goods.

We will endeavor to cover each of these points in our discussion.

Plant Location

The first and foremost consideration should, of course, be the location of the plant itself. Any company that has a progressive policy involving continuous expansion should decide, even while its operation is still small, how large it wants to grow before a second manufacturing facility at another suitable geographical location is to be built.

Operation of more than one plant has many advantages. As a company grows the organizational problems multiply at phenomenal rates, and finally the unit becomes too big and the organization unwieldy and complex. It becomes necessary then to create under separate managements smaller and more effective subdivisions.

A new plant located in the center of a strong market provides customers with better and quicker service, reduces shipping costs, eliminates costly and troublesome warehousing in the area.

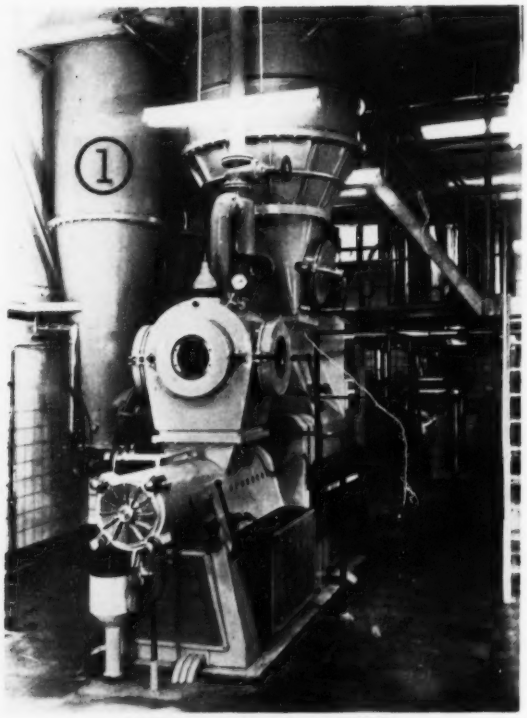
These advantages must, of course, be balanced against the cost of overhead of a new operation, and the additional costs of divided purchases.

The most important consideration in the strategic location of a new plant is, of course, the location of existing and potential markets. Other essential conditions affecting the exact location are favorable zoning regulations, accessibility to railroad sidings, adequate

Central location for markets and transportation, versatile layout and equipment, wise choice of products are the prerequisites of an efficient chemical specialties operation

*Paper presented at 46th annual meeting of Chemical Specialties Manufacturers Association, Washington, D. C., Dec. 8, 1959.

G. MAZZONI, S. P. A.



VACUUM COOLER & DRIER

CONTINUOUS VACUUM PLANTS

For cooling, drying and extruding all kinds of soaps up to 84% T.F.A. Capacities range from 100 to 10,000 Kgs. per hour.

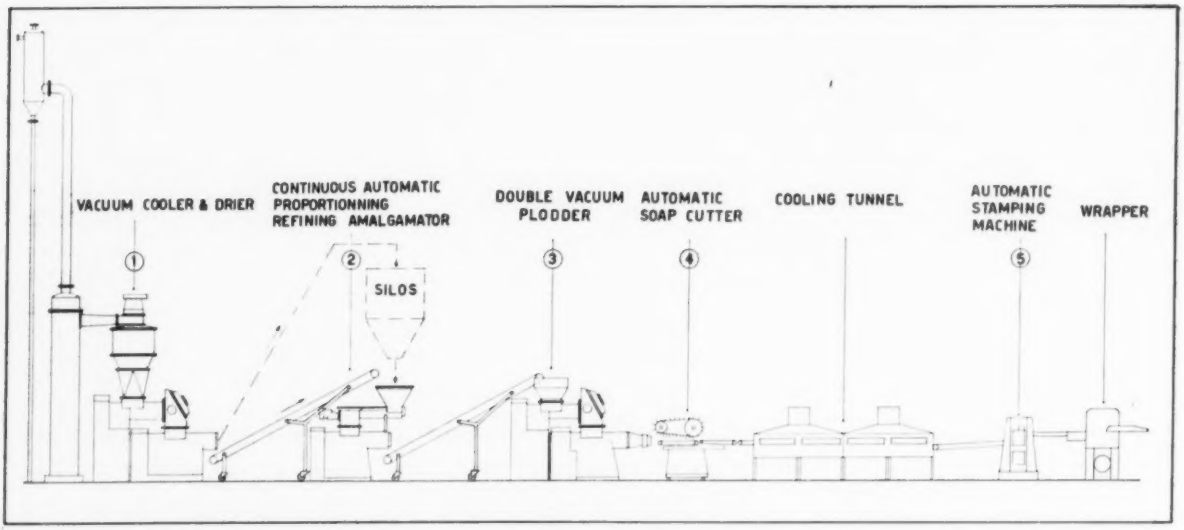
The "MAZZONI" continuous soap plants are outstanding because:

They are economical: Their requirements for steam, water and power are extremely low! Only one operator is required! No scrap soap is produced!

They perform better: 100% "Beta Phase" is guaranteed and gives extra mildness and extra foam even without coconut oil . . . no twisting or distortion!

They are extremely flexible: The same plant also can manufacture pure or built household soaps, flake and powder dried base, etc. from 35 to 84% T.F.A. and more.

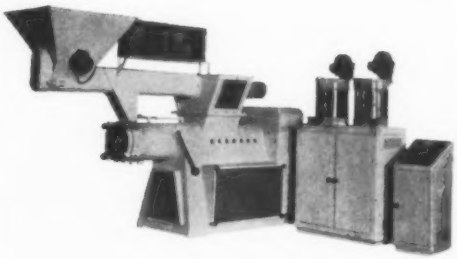
NEW! SPECIALLY DESIGNED LINES FOR SYNTHETIC TOILET BAR!!



Layout of our continuous toilet soap line. Fully continuous or batch processing possible using chips silos. Our line automatically produces fully refined, first class toilet soap with no roll mills. The individual machines that are employed in the above sketch appear on this and the facing page. A complete line or individual units are available with production capacities of 250 to 1500 Kgs. per hour.

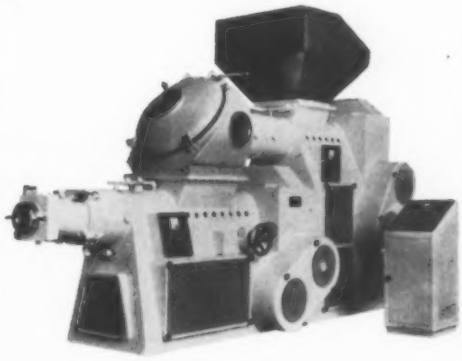
BUSTO ARSIZIO—ITALY

2



CONTINUOUS AUTOMATIC PROPORTIONING REFINING AMALGAMATOR

3

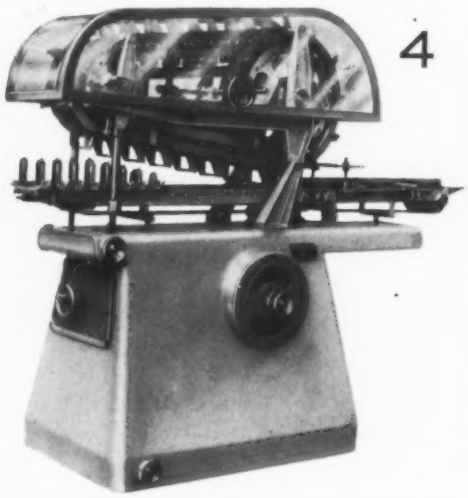


DUPLEX — DOUBLE VACUUM PLODDER
Refiner and Extruder

Units shown on this page are available individually. They appear as numbered in production line diagram on facing page.

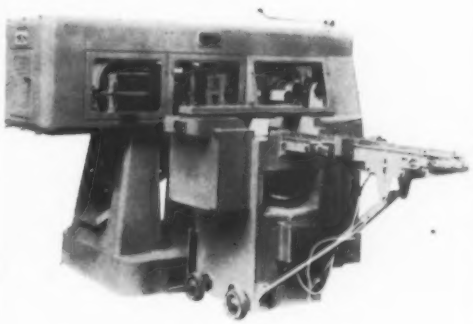
MORE THAN 250 MAZZONI PLANTS ALL OVER THE WORLD

4



AUTOMATIC SOAP CUTTER "TV"
Adjustable cutting length by means of handwheel

5



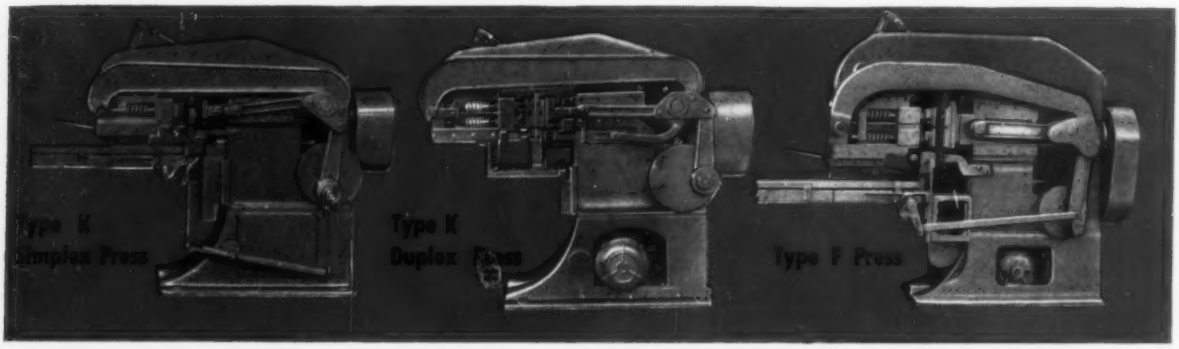
AUTOMATIC SOAP STAMPING MACHINE
Type "St-S" stamping speed up to 125 per minute.
Type "St-D" stamping speed up to 240 per minute.
Type "St-O" for capacity molds. Stamping speed from 100 to 200 per minute.

Your inquiry is welcomed! We send, without obligation, data sheets and other literature on this equipment. Let our staff solve your manufacturing problems! We want you to get the most from your raw materials!

JONES

Automatic Soap Presses

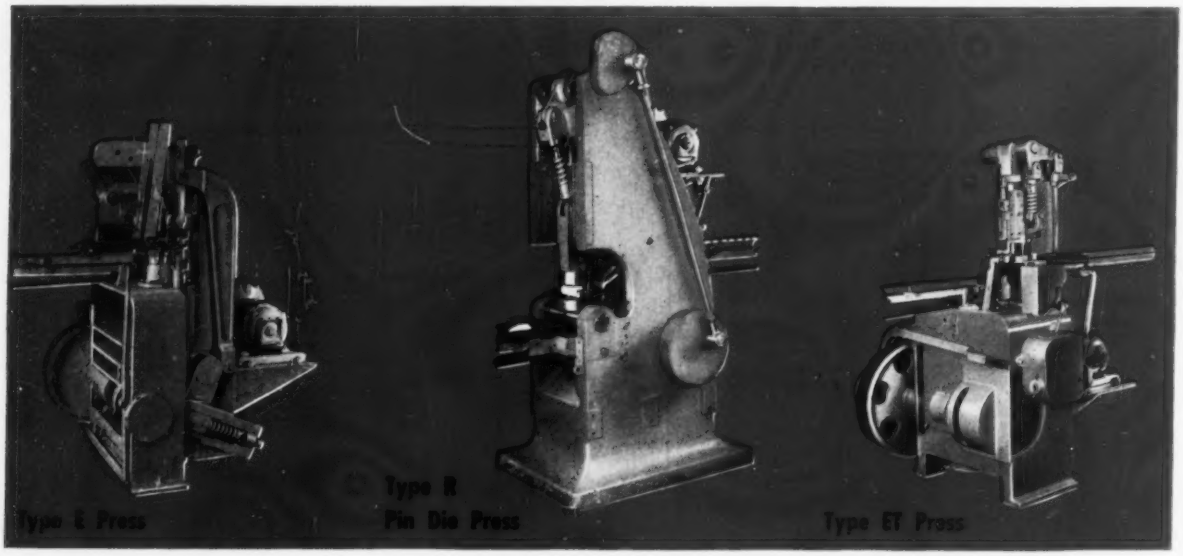
JONES PRESSES, with their exclusive, patented *toggle motion*, have become the standard throughout the world wherever high production, high quality, and perfection of finish are paramount considerations. Standard Jones Presses illustrated here meet all soap pressing requirements. A Jones Toggle Operated Soap Press will improve the appearance of your product, increase your production, reduce your costs. Write today for complete information.



For toilet or laundry soap cakes of any shape (except highly convex cakes) with side band. Speeds of 120-140 cakes per minute.

Applications same as Type K Simplex. Presses two cakes simultaneously. Speeds up to 250 cakes per minute.

For large toilet or laundry soap cakes. Available in Simplex or Duplex Models, pressing one or two cakes per stroke.



For small toilet soap cakes (1½ oz. or less). Speeds up to 200 cakes per minute.

For toilet soap cakes of unusual shape, oval cakes, or cakes having highly convex faces, with or without side band. Speeds up to 100 cakes per minute.

For small toilet soap cakes with side band. Speeds up to 120 cakes per minute.

R. A. JONES & CO., INC.
P. O. BOX 485, CINCINNATI, OHIO
Cartoners — Case Packers — Soap Presses

utilities, fire protection, and a good, adequate water supply. Certain areas along the Eastern seaboard today make plant locations unattractive simply because a once adequate water supply no longer exists. Fortunately, the problems of waste disposal, a prime factor in plant location of most chemical industries, is usually not a factor in the specialty chemicals field.

Last, but not least, housing, schools, and recreational facilities for the personnel must be considered.

Plant Layout

The layout of the plant itself must be planned primarily from the standpoint of material handling. Adequate storage for raw materials must be provided near the manufacturing area, while adequate storage facilities must exist in the shipping area for finished goods and empty container storage.

Many items can be stored out of doors. Plant space is always at a premium, and whenever it is possible, outside storage for both raw materials and finished goods should be utilized. Weather is the limiting factor in most cases.

Fats and oils can easily be stored outside. A well insulated tank with a properly designed steam heating coil will keep the material liquid even in the coldest climate. Most solvents, including petroleum solvents with low wax contents, can be stored outside without any heating facilities. Acids, such as 70-80 per cent phosphoric, may be stored outside.

Raw materials stored outside must be piped by gravity flow to the production area. This area where the manufacturing kettles are located must be laid out so that batches can be charged up with a minimum of labor.

The most efficient plant layout locates the entire unit on one floor with the exception of the manufacturing area for which a second story is provided with space for the storing of raw material and charging of kettles.

It is essential, too, to provide adequate service facilities such as restrooms, locker rooms, recreational areas for employees.

Manufacturing Equipment

In the design of manufacturing equipment the most important consideration is versatility. Because a chemical specialty house manufactures a variety of products, its processing equipment must be adaptable to a large number of procedures and conditions.

A well-designed manufacturing kettle has a mixer powerful enough to handle liquids of high as well as low viscosity, and variable speed to take care of processes that require both high speed and low speed agitation. It has heating and cooling facilities so that any temperature between room temperature and 250°F can be easily maintained.

When faced with a new product, research and development must often answer the question: "Can we make it in the plant?" If the answer is "Yes," well and good. If the answer is "No" and the manufacture of the product requires a new piece of equipment, the cost of which may run into five figures, the prospects for getting the new item on the market are not good. And the product, which might have become a good money maker for the company is probably shelved. Equipment, therefore, must be versatile.

The manufacture of water-emulsion waxes is unique and requires special equipment — wax melting pots, emulsifying kettles with good agitation, heated pipes and valves, cooling systems, and finally for cleaning up the finished product, filter systems, centrifuges, or adequate settling tanks. But here, too, versatility is important. Melting kettles must be able to handle the high viscosity materials such as polyethylene as well as the low viscosity waxes like carnauba.

Mixing and filling of products containing hydrochloric acid requires, of course, special rubber-lined or saran-lined equipment. Further, adequate dust control must be provided in areas where powders are mixed.

As important as the quality of the production facilities, is the maintenance department which takes care of them. The size of the maintenance department is not as important as the ingenuity of its personnel. A first class maintenance crew can handle quickly and efficiently any breakdown in equipment. It can modify a manufacturing unit at a low cost so that a specific new product which otherwise might have required a new piece of equipment can be made with existing facilities.

There are, of course, limits to ingenuity. Even a good crew cannot provide steam for the plant that doesn't have a standby boiler when the one and only boiler is down for repairs. Also, a good maintenance department needs a good inventory. Spare pumps and motors, pump and motor parts, must be kept in stock. And, maintenance work should be done only by the maintenance crew. Considerable trouble can be caused if everyone in the production department who can handle a pipe wrench is permitted to do repairs. If the repair work is done badly, Rube Goldbergs can be rigged up which are actually dangerous to manufacturing personnel. If this is permitted no adequate control of tools is possible. Tools are bound to get lost, misplaced, or broken. Tools are expensive and must be handy when needed. This is essential in the case of an emergency.

Actually rigid control over all tools in the plant is an effective way of eliminating this condition. If the fix-it-yourself type production foreman and all other tinkerers do not have access to the necessary tools they will be forced, by necessity, to go to the maintenance department to get the necessary repair work done.

Manufacturing

Actual production falls into two general categories: Manufacturing for stock and manufacturing for specific orders. When manu-

Look to U.S. for Every Liquid Filling Need!

Decades of liquid filling know-how, enables U. S. engineers to custom-engineer your filler to spark your packaging pace. U. S. basic machines cover a wide range of fully automatic, semi-automatic and hand fillers. Bulletins available on all machines.

Without obligating yourself in any way, write for recommendations. Please specify: Product; size and type containers; desired filling rate per minute, hour or day.

(A) MODEL B-2 VACUUM FILLER. Two containers always filling. Vacuum adjustable. Flow regulated. Stainless steel contact parts, plastic on order. For containers up to 4⅛" dia. Request "Bulletin B-2".

(B) MODEL B-49 STRAIGHTLINE VACUUM FILLER. Standard machine has 9 filling heads. Adjustable for container size changes, miniatures to gallons. All contact parts stainless steel or plastic on order. Available with or without discharge conveyor. Request "Bulletin B-49".

(C) U. S. SIPHON FILLER. Adjustable for all containers, all liquids including foamy products or products that do not permit agitation. Stainless steel tubes; glass lined tank. Request "Siphon Bulletin".

✓ *AIR BOTTLE CLEANER. Semi-automatic. Companion unit to semi-automatic fillers. Air cleans up to 40 containers per minute. Request "E-Z Bulletin."*

U. S. BOTTLERS MACHINERY CO.
4019 N. ROCKWELL ST., CHICAGO 18, ILLINOIS
BOSTON • NEW YORK • PHILADELPHIA • LOS ANGELES • SAN FRANCISCO • SEATTLE
DENVER • PORTLAND, ORE. • OGDEN • KANSAS CITY • TUCSON • JACKSON, MISS. • ATLANTA
MONTREAL • TORONTO • VANCOUVER • WINNIPEG • SANTIAGO • SAO PAULO • HONOLULU

New book on Aerosols . . .

"PRESSURIZED PACKAGING" (AEROSOLS)

By A. HERZKA AND J. PICKTHALL

19 Chapters . . . 411 Pages

Contains chapters covering propellants, filling techniques, laboratory testing, dispenser components, and 13 chapters on formulation of cosmetics, perfumes, foods, hair preparations, foam preparations, insecticides, space deodorants, medicinal preparations, paints, varnishes and removers, fire extinguishers, and a general formulary of aerosol products. Profusely illustrated. Index of aerosol trade names and glossary of terms. Compiled by two outstanding British authorities. The first complete work on aerosols yet to be published.

Cloth bound. **$12.00** postpaid in the U.S.A.
$12.50 elsewhere.

Check must accompany order. Add 3% if in N. Y. City.

MacNair-Dorland Company
254 West 31st St. New York 1, N. Y.

Herewith is check for $..... covering ..... copies of "Pressurized Packaging" by Herzka and Pickthall. Please ship postpaid to the following:

.....

.....

.....

Check must accompany order. Add 3% if in N. Y. City.

facturing for stock, the batch size is normally determined by sales volume. It is, of course, ideally desirable to produce as much as possible of a given product at one time. The cost of labor required to make a thousand gallon batch is little if at all more than that needed for making 500 gallons.

Naturally, there are limits to how much can be made at one time. There is a practical limit to equipment size. Further, we do not manufacture 5,000 gallons at one time of a liquid with a sales volume of only 10,000 gallons per year. It would tie up storage space, working capital, and the material might deteriorate considerably during several month's storage.

Also, a manufacturing department is reluctant to risk making 5,000 gallons or more of a tricky wax emulsion at one clip. If something goes wrong, that's a lot of money down the drain.

On the other hand, if an item averages 250,000 gallon sales throughout the year, production of 1,000 gallons at one time, which is about one batch a day, is inefficient.

As a rule of thumb for the average size operator, the batch size should be such that one week's sales can be made at one time and the manufacturing equipment should, of course, have the required capacity.

When a product has been finished and okayed by the control laboratory, it is pumped to storage. Suitable storage must be available for every product so that the manufacturing kettles can be pumped empty quickly and used for further processing. Storage space should be at least equal to approximately twice the manufacturing batch size. In this way a *minimum* of a week's supply can always be on hand for immediate shipment.

Many times it is desirable to package a product for stock, rather than store it in bulk and fill to orders. This applies particularly to large volume items, where pre-packaging saves much time and labor. Pre-packaging, however, has also certain disadvantages. It takes up more storage space than does bulk storage. Old stock tends to accumulate because fresh stock is invariably piled in front unless close supervision is maintained. You can easily run out of stock on a given container size because it is difficult to predict which container sizes move fastest at any given time in the year.

Special Products

However, problems presented by manufacturing stock items are quite simple compared to those encountered in manufacture of special items for special orders. Special products cut into the production of regular stock items. Delivery on special products cannot be as good as on stock items, and this results in dissatisfaction on the part of the customer with subsequent complaints. Many times these items require special equipment and extra labor.

Special handling of orders together with special instructions add to time consumed in office processing, requires extra time from company executives, and, in general, creates a number of intangible expenses.

Yet, by the very nature of the chemical specialties field, the manufacture of special products is difficult to avoid. The company supplies its customers with specific chemical compounds for a specific end use. When a customer's requirement cannot be met by an item on the regular line, it is incumbent, within reason, of course, upon the firm to make a special product which will satisfy his needs. The good chemical specialties company, after all, sells its service and know-how as well as its products. Finally, if it does not supply the customer with the product he needs, the competitor will.

A great danger exists of adding so many special and in many cases unrelated items, to the line that the manufacturing operation becomes unmanageable and unprofitable. But, on the other hand, new products are a necessary part of growth and expansion.

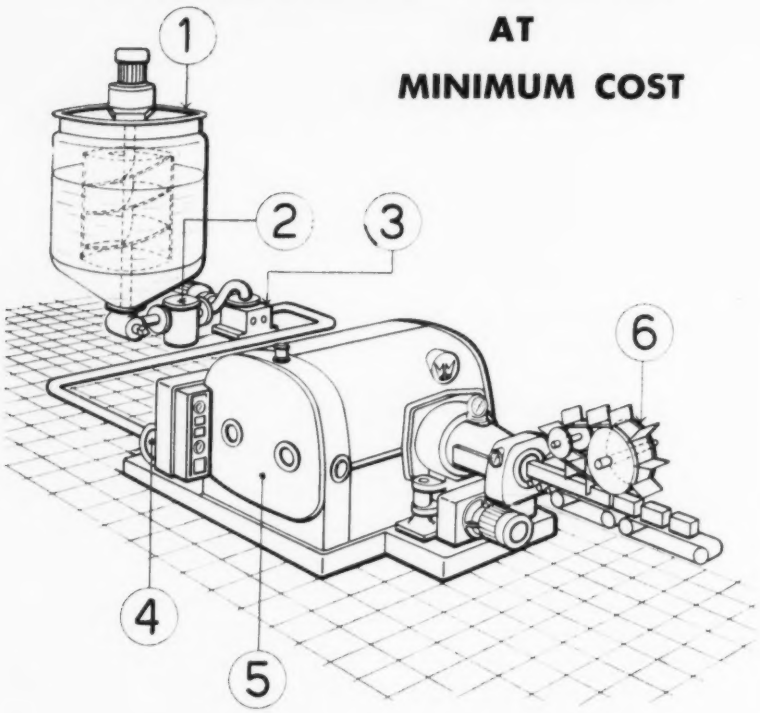
The optimum degree of specialization must be decided upon by sound and intelligent planning in a concerted policy determined by all departments – research, sales, finance, and manufacturing. The sales department, of course, has the dominant voice in determining this policy. It must use sound and firm judgment.

Acceptance of every special product order should be limited to a minimum quantity. This minimum size order need not be necessarily large but it must be a quantity which the manufacturing department can easily handle as a batch. For example, a 55-gallon drum is a reasonable minimum order for a special liquid detergent, a 400 pound barrel for a powdered cleaner, while 500 gallons should be the minimum size order on a special wax emulsion.

Often it is efficient to prepackage for stock rather than store in bulk.

The New SAIX COOLING PLODDER

FOR CONTINUOUS PRODUCTION AT MINIMUM COST



The savings in floor space, labor and production time effected by the SAIX COOLING PLODDER are really impressive. The drawing illustrates the mechanical simplicity of this latest equipment for continuous soap cooling.

(1) The hot liquid soap is drawn from the storage tank through filters (2), (3) and (4), into cooling plodder (5). Here it passes into an annular chamber between a cylinder rotating within a hollow fixed cylinder, both of which are water-cooled. The cooled soap is then compressed by rotating pistons in the collecting chamber. The semi-solid plastic soap then passes to the milling unit and thence to the compression cone, from which it is finally extruded as a continuous bar. It is cut into desired sizes by the continuous automatic cutting machine (6).

Pilot plant available for test at your factory

For further information call or write—

LEHMANN world renowned in processing machinery

J. M. LEHMANN COMPANY, Inc.

550 NEW YORK AVENUE, LYNDHURST, N. J.

The sales department should not demand unnecessary special products. For instance, a product which performs no better than an existing regular line product, but differs from it only in physical appearance should not be made especially. It may represent only the whim of a salesman or his customer.

Two methods can be used to handle effectively some of the problems pertaining to special products. Sometimes they can be purchased from another source at a price lower than that for which they could be manufactured in the plant in small quantities.

In other instances the production of special items can be placed under a special department reporting directly to research and development. After all, such a product could be considered a development item, since it may wind up in the regular line if it is good. Also, manufacturing procedures on special items require closer supervision because experience in handling their production is limited.

Control

In all manufacturing complete cooperation must exist at all times between production and quality control. Control cannot impose unrealistic conditions on production, conditions that existing equipment and procedure cannot handle. By the same token, production must adjust its schedules to permit control a reasonable length of time for checking out the products. In some cases a control test may require 24 hours, and manufacturing equipment cannot be tied up this long, so schedules must be set accordingly.

Control procedures must be reviewed at regular intervals. When a new product is first checked out, control should necessarily be elaborate. However, as the manufacturing department and sales gain experience with the product, many control steps may be eliminated. By the same token, unforseen difficulties may arise, necessitating new checks.

The production department must keep adequate records. Without production records a sales department cannot analyze trends and research cannot properly plan for the future. Good production records help the purchasing department plan its buying schedules.

Finally, a few words must be said about housekeeping. More man hours can be wasted in chemical specialties plants because of sloppy housekeeping than for any other single reason. With hundreds of finished products and equally large numbers of raw materials, a neat, orderly plant is a must. Obsolete materials must be disposed of quickly, rejected finished goods reworked or dumped to conserve valuable storage space.

Floors must be kept clean so that materials can be moved without hazard and with a minimum of effort. Equipment and tools must be kept in good condition.

The chemical specialties industry has the good fortune of being a continually expanding industry. Its problems have never been concerned with obsolescence. Rather, the problems have been pleasant ones dealing with expansion and growth. By continuing to benefit the investor, supplier, customer, and community, the chemical specialties industry should continue to grow with the country's expanding economy.

—★—

Pfizer to Move Offices

The Pfizer Building, now being erected at 235 East 42nd Street, New York, and scheduled for completion in 1961, will house Chas. Pfizer & Co.'s international division and domestic and sales and services departments now located at 200 Second Avenue. In addition, certain sales accounting, and financial functions now handled from the Brooklyn plant will be moved to the new air conditioned 32-story sky scraper. The major part of this building containing 525,000 square feet of floor space will be leased by Pfizer, according to J. William Stuart, vice-president.

Ultrasonic Homogenizers

Surface active agents, shampoos, all types of waxes and polishes as well as numerous other emulsions may be made by ultrasonic homogenizers, according to a six page folder just published by Sonic Engineering Corp., 146 Selleck Street, Stamford, Conn. Pilot plant and production scale equipment is available. One model, trade named "Hydrasonic" is capable of processing up to 9,000 gallons per hour. For dispersions and abrasive emulsions there is a specially designed model which comes in pilot plant and production sizes.

—★—

New Gottscho Imprinter

A new imprinter for placing code-dates or other short legends on the tops of cans, jars, bottles, and other cylindrical packages, was recently introduced by Adolph Gottscho, Inc., Hillside 5, N. J. Called the "Model TMT Markocoder," the unit is fully automatic and can operate at speeds of up to 1,000 units per minute, according to the company. It is reported to accelerate and decelerate automatically to match product flow and can be fitted into a conveyor line at any convenient point. The "TMT" is said to be adjustable for different package sizes and can print on surfaces recessed as much as five-eighths of an inch. A data sheet on the machine with full details is available from the company.

—★—

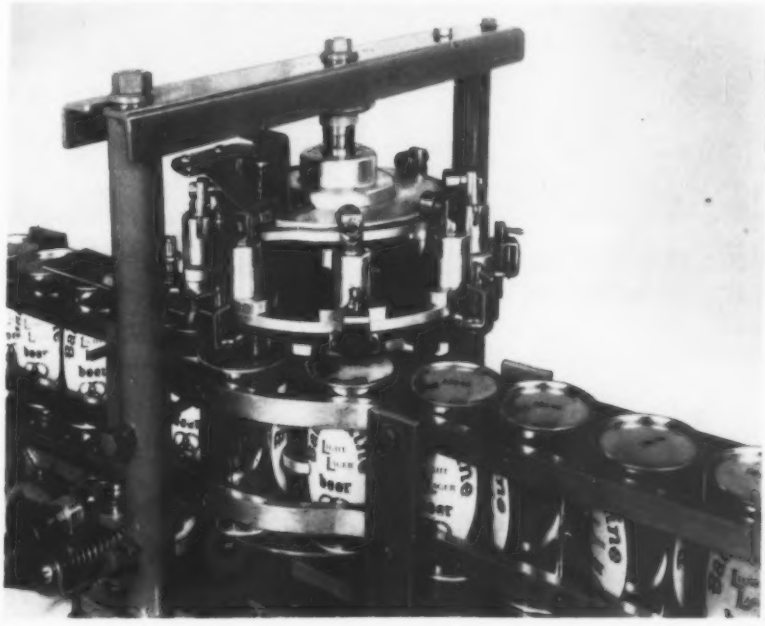
New Huntington Polish

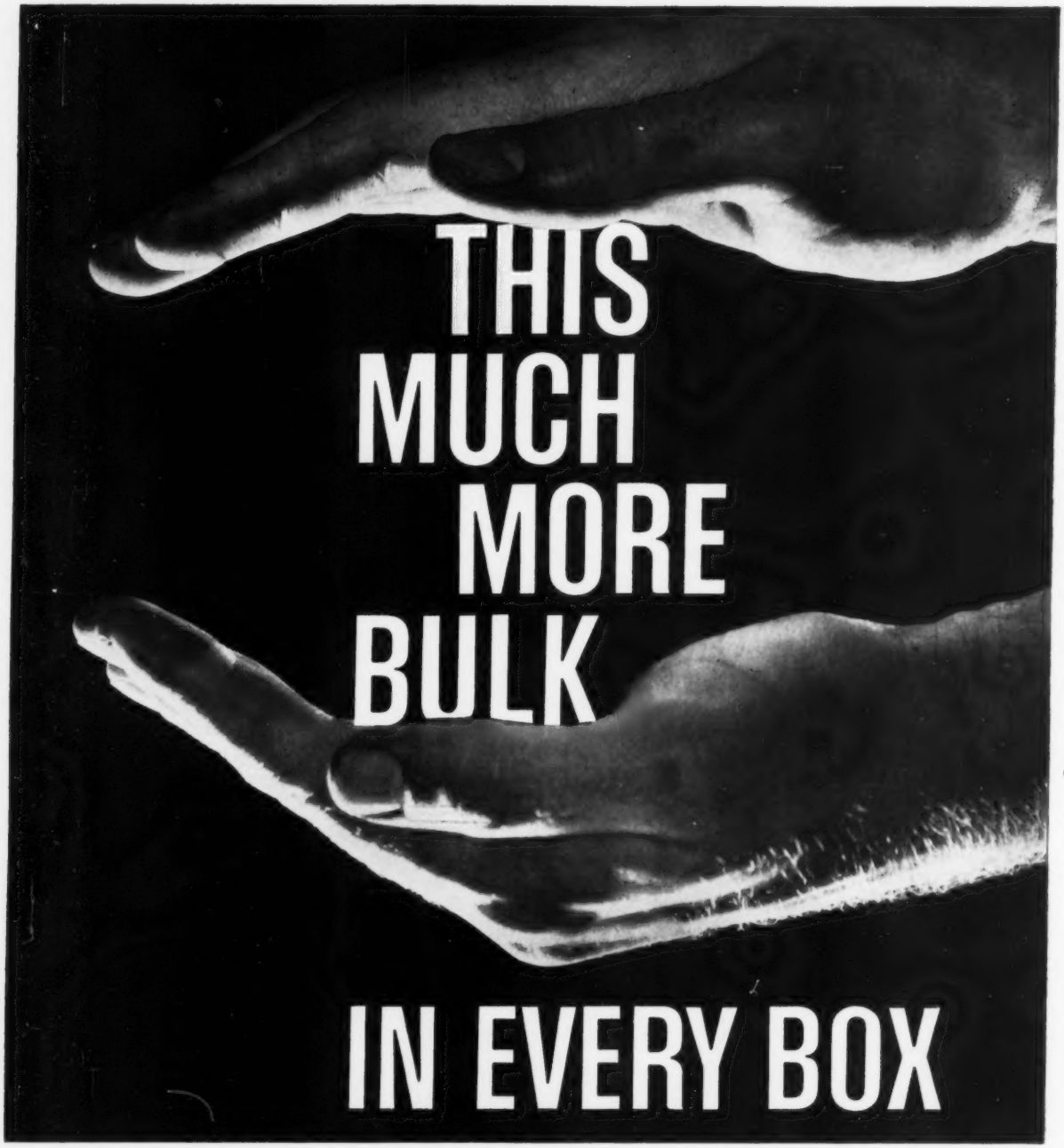
Huntington Laboratories, Inc., Huntington, Ind., is introducing a new water-based wax-free floor polish, tradenamed "Contrast." Claimed to prevent discoloring or darkening of vinyl, asphalt tile, vinyl asbestos, linoleum, terrazzo and rubber tile floors, the product is said to have an aqueous base which will not discolor even white floors.

One gallon of the polish will cover 2,000 to 2,500 square feet, according to the manufacturer. "Contrast " is said to be resistant to water spotting, powdering, black marks and scuffs and to produce a glossy film which is equal to heavy traffic.

For daily maintenance the film is mopped with a treated dust mop. It can be buffed to renew gloss after heavy use. Patching and stripping of the coating are said to be easy. "Contrast" contains an antibacterial for longer shelf life.

New imprinter of Adolph Gottscho, Inc., Hillside, N.J., for placing code-dates or other short legends on tops of cans, jars, bottles, and other cylindrical packages.





BUILD 30% MORE BULK INTO YOUR DETERGENTS WITHOUT INCREASING COST A WHIT Hooker spray-dried phosphates in your detergents give them up to 30% more bulk, depending on the amount you use. This added bulk comes from an air bubble inside each phosphate granule. Consequently, no cost or weight is added.

DISSOLVE FASTER Spray-dried phosphates dissolve two or three times faster than ordinary forms because they have so much more surface area. They flow freely. Their high air content keeps them loose all the time.

99% PURE When you get your spray-dried phosphates from Hooker you can be sure you're getting the highest purity available. They range from 97% to 99% pure.

Choose the one that meets your needs—sodium tripolyphosphate or tetrasodium pyrophosphate. Hooker can supply you with either.

For more information on how to make better detergents by using these phosphates, write to the address below.

You can also get the following in regular density: disodium phosphate, trisodium phosphate, sodium hexametaphosphate, and sodium tripolyphosphate.

HOOKER CHEMICAL CORPORATION
PHOSPHORUS DIVISION, Dept. SC-1
60 E. 42nd Street, New York 17, N. Y.
MUrray Hill 2-2500

HOOKER CHEMICALS PLASTICS

SOAP PLANT *Observer*

By Willis J. Beach
Technical Service Department,
Sugar Beet Products Co.

THIS is part two of our discussion on suitable hood installations for the laboratory or for work areas in the plant from which it is necessary to remove troublesome fumes and vapors. Last month we discussed hood design and location, mentioning the interesting new concept of spot control ventilation in use at Upjohn Co., Kalamazoo, Mich. Certain other aspects also important to good ventilation control, and covered in the report, "Laboratory Hood Ventilation Design," published in *Michigan's Occupation Health, 4,* 4 (Summer 1959), are discussed here.

The guiding principle for exhaust ductwork installation is that the system should be under negative pressure. With the inside ductwork under negative pressure, leaks due to poor construction or deterioration of the system will be into the ducts and the contaminant confined.

For this reason, locating the exhaust fan on top of the hood is incorrect even if convenient. Negative pressure in the ductwork will result if the fan is located on the roof. This is good practice even though it is then necessary to provide weatherproofing for the motor. A further advantage is that explosion-proof construction is not required for the motor even when flammable material is handled.

For the larger, multi-hood systems involving a manifold exhaust duct with branches to several hoods, the negative pressure system still is best. In these systems, connections should be streamlined. Branch ducts should enter at angles of 30 to 45 degrees rather than with T connections. The ductwork must be sized properly to maintain minimum transport velocities necessary to prevent settling out of particulate material.

In the case of hoods handling only fumes, gases or vapors, the duct velocity may be set at a figure of around 2000 feet per minute which is a good compromise between horsepower savings and duct space required; but for general purpose hoods, the usual range of transport velocities is 3500 to 4500 feet per minute.

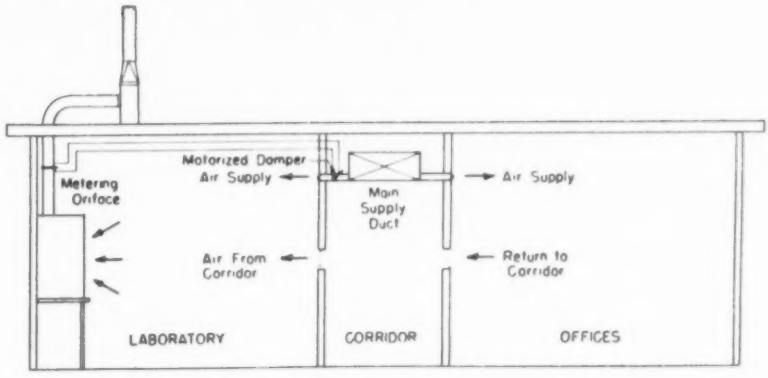
Some thought must be given in fan installation to measures needed to achieve rated performance. For example, fans installed close to an elbow will show reduced performance. Rating tests on fans are always made with straight runs of ductwork at the inlet and outlet.

It is usually wise to consider using ductwork of long life expectancy. This is particularly desirable when ductwork is concealed in ceilings or walls of new buildings, making inspection and replacement a difficult undertaking. Galvanized and black iron duct is highly susceptible to corrosion. Although initial costs are higher, the use of transite, stainless steel, polyvinyl chloride-coated steel, or fiberglass-reinforced plastic ductwork will avoid early replacement in systems handling corrosive materials.

Some thought must be given to location and installation of the terminal ends of the fan discharge. Preferably the discharge should be at least five to 10 feet above the laboratory roof; however, the nearness of other buildings or prevailing wind currents may affect the exhaust air path and dictate certain modifications. In either event, the exhaust duct should be located so that fumes cannot be redirected to the laboratory or carried by winds into the building at another point.

The straight T and the inverted cone types of weather caps should be avoided. The former tends to redirect the exhaust back down toward the roof and is also poor in terms of fan efficiency.

In this typical laboratory air supply system, the offices are under slight positive pressure, the corridor under less pressure and the laboratory under slight negative pressure—insuring that all leakage will be into the laboratory.



If you have a backlog of "promising" liquid detergent formulas that won't go into clear solution, or that cloud up under temperature changes, Ultra's hydrotropes may be the answer to your problem.

For example, in heavy-duty liquid detergents, where large amounts of phosphates tend to force the active organic ingredient out of solution, Ultra's hydrotropes act as solubilizers or coupling agents, permitting the formulation of clear, stable solutions.

In light-duty liquid detergents, these hydrotropes often are effective cloud-point depressors. In some cases, cloud points can be depressed as much as 15°F.

In spray-dried soaps or detergents, Ultra hydrotropes provide anti-blocking properties that help to assure free-flowing beads.

Write for our bulletin on the properties and applications of ULTRA Hydrotropes SXS and STS. Or, call Ultra's Director of Technical Service for help on your formulation problems.

Ultra Chemical Works

Division of Witco Chemical Company, Inc.

2 Wood Street, Paterson, N.J.

ULTRA Chemical WORKS

The latter also reverses the flow and can cause the trapping of high temperature or corrosive materials in and around the roof structures.

The report suggests that the most practical fan discharge is the straight vertical stack with no directional baffles or projections, but states that a suitable drain be connected to the housing. The selection of collection equipment for removing contaminants from the exhaust air is complicated by the variety of corrosive and toxic materials handled in the laboratory hoods and the varying demands for air cleanliness. Generalization about the selection of such equipment then is dangerous. Each case requires separate handling.

Air Supply

A properly exhausting fan creates a pressure below atmospheric—a so-called "negative pressure"—causing air to flow into the hood and ductwork. An adequate supply of clean make-up air is then necessary to replace the supply of air in the lab. This air comes from the outside either directly or indirectly from other parts of the building. Unless a specific supply of make-up air is made available, air will leak inward through outside windows, doors and quite possibly even through other weaker exhaust equipment. For example, when two fans are exhausting from the same area, *and there is inadequate provision for make-up air*, the stronger fan will take command and air will enter the room through the weaker fan.

It is safe to say that whenever your fan is installed so as to exhaust out of the room, and there is inadequate air supply, both the capacity of the fan and air control at the hood will suffer.

Designing for Make-up Air

Supply air systems may be designed for the individual laboratories or on the basis of the entire building. In the accompanying illustration, the main supply duct is carried in unused space above the corridor ceiling and the air supply is split. Some of the air goes to the lab where it is under the control of the exhaust fan at the hood. The supplied air is less than the exhaust air requirements of the lab which fact keeps the lab under slight negative pressure. The corridor obtains its air from the adjacent offices which receive air from the main supply system. The offices then are under a slight positive pressure; the corridor is under less pressure, and the laboratory, where the air is being exhausted, is under slight negative pressure. In case of exhaust fan failure or reduction in volume because of belt wear or fan corrosion, a sensitive control in the exhaust system will close the direct air supply to the laboratory. Thus, any leakage will be into the lab, not out of it.

We are indeed in debt to *Michigan's Occupational Health* for the information in this useful report. Copies of the full report are available from the Division of Occupational Health, Michigan Department of Health, Lansing 4, Michigan. We believe various activities in Michigan can request the Division Engineers' services on this subject by writing or phoning.

Silver Compounds as Germicides for Soaps

SILVER compounds are claimed in two recently issued U. S. patents to be effective as germicidal agents in soaps. As a result, new developments in the field of deodorant soaps may be forcast, according to the September, 1959, issue of *Schimmel Briefs*, in which the two patents assigned to Permachem Corp., West Palm Beach, Fla., are discussed at length. The "Briefs" is a monthly technical bulletin of Schimmel & Co., 601 W. 26th St., New York 1, N. Y.

The reaction products of silver halides with ethylene thiourea as a germicidal agent for soap are covered in U. S. patent No. 2,864,768, issued to Maynard M. Baldwin. The other patent, U. S. No. 2,864,769, issued to G. A. Lutz and R. E. Sharpe, deals with silver benzene sulfinate and related silver salts.

Silver salts have been used as germicides by doctors for many years. Silver nitrate, listed as a germicide in the *National Formulary*, is toxic to bacteria at very low concentrations. When used on the skin, however, it has some very undesirable properties such as precipitating proteins from solution and being corrosive when applied in concentrated form. Weak solutions of silver nitrate are astringent and somewhat irritating. In addition, the salt leaves a persistent brown stain on the skin.

Colloidal preparations of silver are less irritating than silver nitrate, but are only sparingly ionized in solution and so are weaker germicides than silver nitrate. They are said to be effective disinfectants of surfaces with which they remain in prolonged contact. Silver protein precipitates, one form of colloidal silver, disperse in water forming brown colloidal solutions. Like other silver compounds, they are sensitive to light.

Pure silver iodine and silver chloride are ineffective as germicides because of their insolubility.

The compounds patented by Baldwin as antiseptics for use in soaps are complexes of silver halides with ethylene thiourea, a cyclic compound. While all of the silver halides complexes with ethylene thiourea show marked germicidal activity in soap, the silver chloride complex, according to the patent, is outstanding. The patent claims that a soap containing silver chloride-ethylene thiourea complex in the proportion of 420 mg. to 200. g. of dry soap in one test of five washings reduced skin bacteria counts to 12 per cent of the original figure.

Schimmel Briefs points out that the antiseptic activity of silver complexes with ethylene thio-

(*Turn to Page* 180)

Over 6,000 Jobbers of

SANITARY CHEMICALS
CLEANING SUPPLIES
MAINTENANCE EQUIPMENT

would read your advertising every month if it appeared in

Maintenance and Sanitary Supplies

Member BPA

MAINTENANCE & SANITARY SUPPLIES gives the fullest coverage of the jobber market yet offered, including the following: (1) sanitary supply jobbers, (2) janitor supply houses, (3) paper jobbers, (4) school supply jobbers, (5) hotel supply firms, (6) bar, restaurant and club suppliers, (7) cleaning and maintenance contractors with jobbing departments.

MAINTENANCE & SANITARY SUPPLIES is published by an organization which has "lived with" the sanitary and janitor supply trades for over thirty years. Its controlled circulation assures full coverage of the jobber market every month. Through its jobber salesmen, M&SS is a main sales artery between the manufacturer and industrial consumer. Every monthly issue goes to more than 6,000 separate jobbing and distributing firms.

Published by

MAC NAIR-DORLAND COMPANY

254 West 31st St., New York 1, N. Y.

Also publishers of

"SOAP & CHEMICAL SPECIALTIES" AND THE ANNUAL "SOAP BLUE BOOK"

NEW Patents

The data listed below are brief reviews of recent patents. Complete copies may be obtained from the publisher of this magazine: — MacNair-Dorland Co., 254 W. 31st Street, New York 1, N. Y. Remit 50¢ for each copy. For orders received from outside of the United States send $1.00 per copy.

No. 2,908,651. Liquid Detergent Composition, patented by Richard Anthony Grifo, Easton, Pa., assignor to Colgate-Palmolive Co., Jersey City, N. J. A clear, single phase, concentrated liquid detergent composition is patented consisting essentially of a water soluble detergent salt selected from the group consisting of alkali metal, ammonium and ethanolamine salts of sulfonated higher alkyl mononuclear aryl hydrocarbons and a foam and detergency improving inorganic salt selected from the group consisting of magnesium chloride, magnesium sulfate and calcium chloride, said inorganic salt being present in an amount from about 5% to about 100% of the weight of said sulfonated hydrocarbon but insufficient to cause phase separation of said liquid detergent composition, and said sulfonated detergent and inorganic salt together being at least 20% by weight in a selective liquid solvent therefor comprising a mixture of a low molecular weight aliphatic alcohol and water in a ratio between about 2:1 and 1:5.

No. 2,913,368. Bacteriostat, patented by Gail H. Birum, Dayton, O., assignor to Monsanto Chemical Co., St. Louis, Mo. This patent discloses the method of inhibiting the growth of bacteria which comprises exposing said bacteria to a compound of the formula

$$RO—S—CCl_3$$

in which R is selected from the class consisting of alkyl, alkenyl, aryl and arylalkyl radicals of from 1 to 18 carbon atoms and said hydrocarbon radicals having at least one substituent selected from the class consisting of halogen, nitro and alkoxy, radicals of from 1 to 4 carbon atoms, said compound being used in a quantity which is toxic to the bacteria.

No. 2,906,662. Method for Combating Fungus, Employing C_2Cl_6, patented by Emery J. Carlson, Summit, N. J., assignor to Allied Chemical Corp., New York. A method of combating fungus is introduced which comprises applying to the material susceptible to attack by fungus a fungicidal composition containing as an essential toxic ingredient a chlorocarbon having the empirical formula C_2Cl_6 and characterized by being a pale yellow, odorless, crystalline solid having melting point of substantially 132° C.-133° C., being soluble in carbon tetrachloride and diethyl ether, slightly soluble in acetone, xylene, methanol, ethanol and isopropanol, insoluble in water, exhibiting characteristic absorption maxima in the infrared region, when combined with potassium bromide in pellet form, at the following frequencies expressed in reciprocal centimeters: 1587, 1351, 1282, 1205, 1176, 1149, 1053, 990, 806, 735, 704, and 662 and having a composition by weight of approximately 27.5% carbon and 72.5% chlorine.

No. 2,913,416. Liquid Detergent Composition, patented by Manuel N. Fineman and Charles G. Gebelein, Philadelphia, assignors to Rohm & Haas Co., Philadelphia. The invention covers a liquid detergent composition characterized by low foam, superior detergency, and a cloud point of at least about 30° C. which comprises by weight from 5 to 30% of the benzyl ether of an octylphenoxypolyethoxyethanol containing from twelve to thirty ethoxy units, at least one member of the class consisting of 1 to 10% of the sodium salt of methylene bis (naphthalene sulfonate) and 0.5 to 15% of the sodium salt of a fatty acid containing from twelve to eighteen carbon atoms, up to about 10% of tetrapotassium pyrophosphate, up to about 10% of an octylphenoxypolyethoxyethanol containing from seven to twenty ethoxy units, and water to make up to 100%.

No. 2,898,264. Bactericidal Compositions to be Used Specially for Food Industries Equipment, patented by Francis Jacques Charles Weber, Nancy, France, assignor to Colgate-Palmolive Co., New York. Disclosed is a bactericidal cleaning composition comprising N-sodium N-chloroparatoluene sulfonamide and a chlorinated 2-hydroxy phenyl compound selected from the group consisting of (*a*) 2,2′-dihydroxy-3,3′,5,5′,6,6′-hexachloro diphenylmethane, (*b*) 2,2′-dihydroxy-5,5′-dichlorodiphenylmethane, and (*c*) 2,2′-thiobis (4,6-dichlorophenol), the proportions being from about 95 to 99 parts of said sulfonamide and 1 to 5 parts of said chlorinated 2-hydroxy phenyl compound.

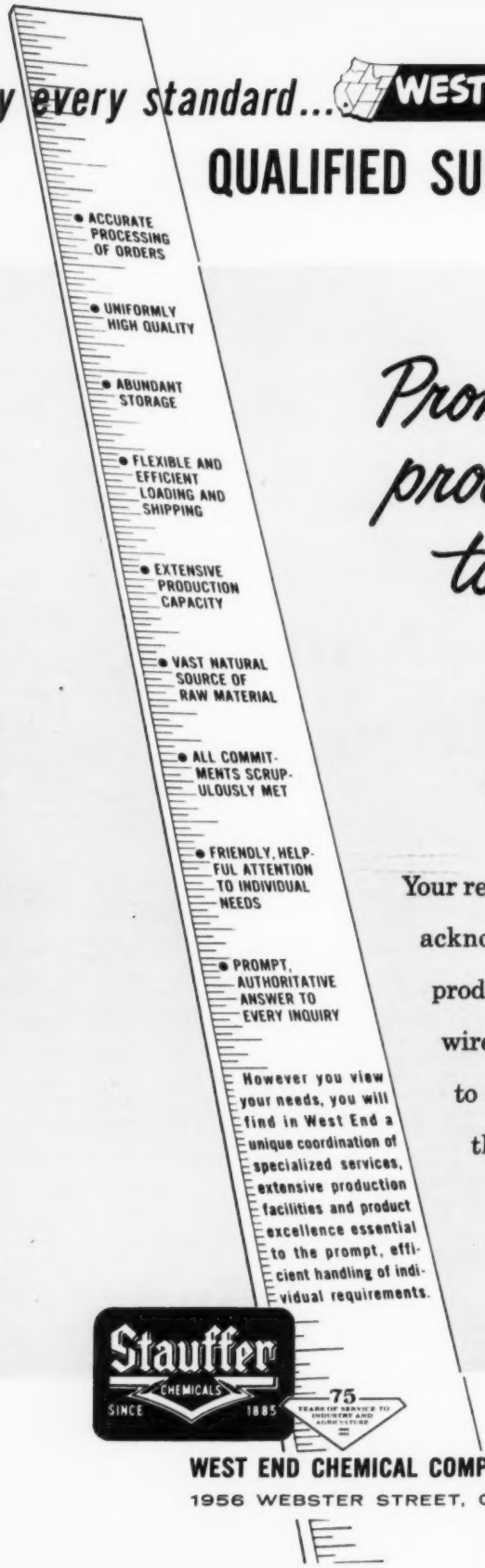
No. 2,911,371. Cleaning Metal Surfaces with Hydrocarbon Solvents, patented by George E. Weis, Independence, Mo., assignor to Standard Oil Co., Chicago. In a process for cleaning metal surfaces of equipment such as tank cars, storage vessels, transfer lines, and the like which have been contaminated by tarry or resinous products such as crude oil, fuel oil, asphalt and other petroleum residual products, the patent claims the step of washing the metal surface at elevated temperature with a distillate non-viscous hydrocarbon fraction which contains an additive combination essentially consisting of about 0.2 to 2.0 weight percent of a detergent-dispersant consisting of a nongaseous hydrocarbon which has been reacted with a phosphorous sulfide and thereafter has been neutralized with a basic reagent selected from the class consisting of basic compounds of alkali and alkaline earth metals and about 0.4 to 1.0 weight percent of an N-alkyl propylene diamine having the formula $RNHCH_2CH_2CH_2NH_2$ wherein the alkyl radical R is selected from the group consisting of n-cetyl and fatty acid residue derived from lauric acid, coconut fatty acids, soya fatty acids and tallow fatty acids.

No. 2,899,340. Method of Rendering Textile Materials Fungicidal and the Products Thereby Produced, patented by Sylvan I. Cohen and Martin S. Frant, Ossining, N. Y., assignors to Gallowhur Chemical Corp., New York. A two-step method of rendering a textile material durably mildewproof, germicidal and fungicidal, which comprises forming in situ in and on the fibers of the textile material a water-insoluble quaternary ammonium 2-mercaptobenzothiazolate by passing the textile material successively in either order through separate aqueous solutions, one of which is an aqueous solution of a germicidal quaternary ammonium compound and the other of which is an aqueous solution of a water-soluble 2-mercaptobenzothiazolate, said quaternary ammonium compound synergistically reacting, upon contact with said 2- mercaptobenzothiazolate to form said quaternary ammonium 2-mercaptobenzothiazolate which becomes an integral and leach-resistant part of the textile material.

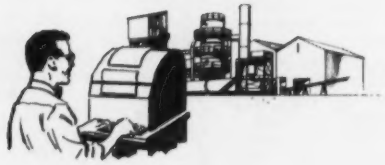
No. 2,907,649. Aluminum Cleaning Composition, patented by Bernard Berkeley, Hempstead, and Arthur Petersen, Brooklyn, N. Y., assignors to Commonwealth Products, Inc., Kalamazoo, Mich. Covered is a powdered aluminum cleaning composition, consisting essentially of about 1–20 parts by weight oxalic acid, about 1–20 parts by weight sodium bifluoride, about 1–20 parts by weight of a soap capable of liberating fatty acids in the acid solution, at least about 40% of the fatty acids being saturated, and about 96-39 parts by weight of finely ground abrasive.

No. 2,904,462. Bacteriostat, patented by Marjorie E. Moreland, and Daniel E. Reheis, Maplewood, N. J. The invention consists of a process of inhibiting the growth of bacteria which comprises applying to the bacteria and maintaining in contact therewith for a period of at least three minutes a bacteriostat consisting essentially of an aqueous solution of aluminum chlorhydroxy complex of the empirical type formula $Al_2(OH)_yCl_z$, in which x is a number within the range about 1.5-2.5, z is 1, and the sum of y and z is $3x$, the solution being in the condition of having been aged at ambient temperatures for at least 2 weeks and the concentration of the said complex at the time of application to the bacteria being about 1 part for 10^4 to 2.5×10^4 parts of water.

By every standard... WEST END MEASURES UP AS THE QUALIFIED SUPPLIER OF SODIUM SULFATE


• ACCURATE PROCESSING OF ORDERS
• UNIFORMLY HIGH QUALITY
• ABUNDANT STORAGE
• FLEXIBLE AND EFFICIENT LOADING AND SHIPPING
• EXTENSIVE PRODUCTION CAPACITY
• VAST NATURAL SOURCE OF RAW MATERIAL
• ALL COMMITMENTS SCRUPULOUSLY MET
• FRIENDLY, HELPFUL ATTENTION TO INDIVIDUAL NEEDS
• PROMPT, AUTHORITATIVE ANSWER TO EVERY INQUIRY
However you view your needs, you will find in West End a unique coordination of specialized services, extensive production facilities and product excellence essential to the prompt, efficient handling of individual requirements.

Prompt, accurate processing of orders to last detail



Your requirements as to shipping dates, routing, acknowledgements, advices, scheduling and product specifications are relayed by private wire teletype from the Oakland Sales Office to the responsible plant personnel who see that orders are filled exactly as written.

Stauffer CHEMICALS SINCE 1885 — 75 YEARS OF SERVICE TO INDUSTRY AND AGRICULTURE

WEST END CHEMICAL COMPANY • DIVISION OF STAUFFER CHEMICAL COMPANY

1956 WEBSTER STREET, OAKLAND 12, CALIF. • PLANT: WESTEND, CALIF.

Products and PROCESSES

New Polystyrene Emulsion

An especially light colored new polystyrene emulsion for use in buffable and non-buffable floor polish formations has been introduced recently by Polyvinyl Chemicals, Inc., Peabody, Mass. Developed for incorporation in both household and industrial polishes "NeoRez S-71" is claimed to impart good leveling properties, deep gloss, and a high degree of dirt resistance to the final product.

The new emulsion may be formulated with natural and synthetic waxes and with alkali soluble resins. Polishes are said to exhibit good aging characteristics and freeze/thaw stability. In addition to floor products "NeoRez S-71" is suggested also for shoe polishes and other dressings.

—★—

Nonionic Defoamers

Eldorado Division of Foremost Food & Chemical Co., Oakland 4, Calif., has just introduced three new defoaming compounds for general use. Tradenamed "Eldofoams" the new defoamers are non-ionics.

The firm maintains laboratory facilities to assist customers in the solutions of their individual defoaming problems and for the evaluation of various defoaming compounds.

—★—

Aerosol Toothpaste

Pressure packaging of toothpaste usually requires adaptation of the formula to new flow requirements. "Carbopol 934" is suggested for use in reformulations of this type in a bulletin just issued by B. F. Goodrich Chemical Co., 3135 Euclid Avenue, Cleveland 15. "Carbopol 934" is a carboxy vinyl polymer supplied in free acid form as a white fluffy powder.

Pastes which do not cling to the sides of the can and flow easily through the delivery orifice are said to result from the following basic formulation:

	weight
"Duponol C"*	17.5
Sodium saccharine	1.0
Water	242.0
Glycerine	330.0
"Carbopol 934"	14.3
Sodium hydroxide (20% solution)	31.0
Flavor	15.0
Dibasic calcium phosphate dehydrated	350.0

*trade name of E. I. du Pont de Nemours & Co. for sodium lauryl sulfate, U.S.P.

The suggested procedure consists of the following steps: 1. Mix saccharine, water, glycerine and "Carbopol 934." The polymer must be added slowly to avoid forming lumps. Agitate to a smooth thin dispersion. 2. Add sodium hydroxide while stirring slowly; mixture will thicken gradually. 3. Transfer batch to a high shear mixer and slowly add the dibasic calcium phosphate. Maintain as high vacuum as possible to de-aerate the mix completely. 4. Add flavor. 5. Carefully add "Duponol C" and blend to uniformity. The paste is then ready for pressure packaging. Good shelf life is claimed for the product.

—★—

Tank Car Cleaner

Tank cars can be freed from residues left by hard to remove substances such as plasticizers by the use of "Tergitol nonionic TMN" (trade name of Union Carbide Chemicals Co., New York) in a stream of hot water. An article published in the November issue of *Chemical Progress*, external house organ of Union Carbide, reports test results showing this method to be effective in removing organic residues from metal surfaces.

Steam cleaning was found to be less effective than any of the detergents tested—except in operations where odor removal was the major problem, *Chemical Progress* reports. A stream of hot water (140°F) containing 0.1 per cent surfactant should be sprayed directly onto the surface. This operation should be repeated three times at a distance of one or two inches and should be followed by rinsing with cold water, the article suggests.

The treatment described above is claimed to remove oils and grease from clean and rusty steel, aluminum, and phenolic-coated surfaces. "Tergitol TMN" apparently acts both as a wetting agent and emulsifier. No corrosion is said to occur during the short cleaning period. Low surfactant concentration is claimed to make the method economically attractive.

—★—

Versatile Emulsifiers

Two new emulsifiers said to be effective with all types of weed killers and chlorinated and phosphate insecticides have just been introduced by Stepan Chemical Co., 427 W. Randolph Street, Chicago 6.

"Toximul R" and "Toximul S" are claimed to be particularly effective in the emulsification of chlorinated toxicants such as parathion, phosdrin, etc., in heavy aromatic solvents. Stable even in the most reactive systems, according to Stepan, the two emulsifiers will simplify inventories and formulations through their wide spectrum of usefulness.

Another development announced by Stepan is "Toximul LF," an emulsifier for soil insecticides and other toxicants in liquid fertilizer formulations.

—★—

New Oakite Bulletin

Service bulletin No. 16A titled "How to Get the Most Out of Ultrasonic Cleaning" was recently published by Oakite Products, Inc., New York. The company manufactures chemical compounds for industrial cleaning and metal treating. The bulletin describes the process by which high frequency sound waves impart scrubbing action to solutions to speed precision cleaning. It goes on to describe compounds which have proved effective, and the types of operation ultrasonic cleaning does best.

New Prentiss Pyrethrum Plant

THE installation of a completely automatic three still, high vacuum fractional distillation unit for refining pyrethrum extract has been completed by Prentiss Drug & Chemical Co., New York. The process now in operation in a specifically designed plant in Newark, New Jersey, provides a clear, light amber extract of high purity that is non-staining, according to John Stoddard, vice-president in charge of sales for Prentiss. The non-staining feature is especially important to formulators of aerosol insecticides. However, the pyrethrum extracts from the new process will also be used in all types of pyrethrum and pyrethrum-synergist formulations.

Other advantages of the new process are that the pyrethrins extracted by the high vacuum distillation are of extremely high purity and thus can meet rigid specifications. Other methods of extraction previously used require two or three steps in order to obtain a high yield and the same high purity.

The new pyrethrum extract refining plant is operated by Prentiss under license from Cooper, McDougall & Robertson, Ltd., Berkhamsted, Herts, England, who designed and had the equipment built to its specifications in England. CM&R operate a unit of similar design for extraction of pyrethrins in its plant in England, and incidentally, was the first (1949) and largest aerosol loader in Europe. Ronald McIntyre, an engineer of the Cooper organization, attached to the managing director's office, has been working at the Prentiss plant since September, when the equipment arrived in the United States. Mr. McIntyre supervised the erection and initial operation of the plant.

The three high vacuum distillation stills are the heart of the new process and were designed specifically to handle heat-sensitive pyrethrins. In the first stage the petroleum fraction of the original extract is driven off. The extract as it is received from Africa is a dark, bitumen-like substance. From storage tanks, it is pumped into weighing tanks and then into the first still where the light petroleum fraction is removed. This makes it possible to take off the higher fraction in the second stage. In the third stage, the biologically active pyrethrins are separated from the waxes and sludge.

Temperatures in the three stills range from 125°C. in the first unit, to 180°C in the second and 230°C. in the third. The vacuum maintained is extremely high, in the order of 0.2 mm of mercury.

The new Prentiss processing plant, which augments their existing manufacturing facilities, is the first in the United States. It occupies a room of approximately 15 x 15 feet. The capacity of the unit is about 800 pounds of material per day, or approximately 120 pounds of pure pyrethrins.

—★—

History of Soap

An educated guess as to the origin of soap and a thumbnail sketch of how present day soap was developed are presented in the September issue of *Naarden News*, external house organ of N. V. Chemische Fabrik "Naarden," Bussum, Holland. The essay, entitled "The History of Soap" is written with charm and humor by A. J. de Jong, managing director of Lever's Zeepmij, N. V., Vlaardingen, Holland.

Silver Germicides

(*From Page* 175)

urea is "surprising" in view of the weak antiseptic effects of colloidal silver halides. In order to have a noticeable germicidal effect in the brief time that the soap is in contact with the skin, the complexes must act rapidly. The cyclic structure of the thiourea derivative seems essential for high germicidal activity in soap. Compounds obtained by the reaction of silver chloride with acyclic derivatives of thiourea, e.g., 1,1-dimethyl thiourea, have little or no bactericidal activity in soap.

The silver chloride complex with ethylene thiourea is said to provide adequate antibacterial activity when used in soap at a concentration equivalent to 500 p.p.m. of silver. Soaps containing the silver complex are said to have substantially the same mildness as the soap base. No information appears in the patent as to whether complexes are sensitive to light. Since they are used at a low concentration they probably would not produce the discoloration in white soaps which might be expected from silver compounds, according to *Schimmel Briefs*.

The second patent (2,864,769) covers silver benzene sulfinate, a simple organic salt of silver which has a germicidal effect in soap. A bacteriological test is cited in the patent which demonstrates the rapid action of this salt in the presence of soap. Samples of dilute soap solution containing silver benzene sulfinate (over 100 p.p.m. of silver) were inoculated with cultures of *B. subtilis*, *E. coli* and *M. pyogenes* var. aureus. In each case the samples became sterile within five minutes. Futhermore, silver benzene sulfinate is claimed to be fungicidal. In a test against a mixture of fungi commonly found in air samples, the silver salt in soap solution prevented the growth of all of the organisms on nutrient agar. The results of a hand washing test reported in the patent, in the opinion of the *Schimmel Briefs* writer, appeared inconclusive.

Suggested concentration of silver benzene sulfinate in antiseptic soaps is 500 p.p.m. of silver. The silver salt of α-toluene sulfinic acid shows some antibacterial activity as would be expected from its close relationship to benzene sulfinate. However, it is less effective than silver benzene sulfinate in the presence of soap.

. . . can improve your Caustic Compounds!

If you produce an alkali product containing at least 40% caustic soda, Solvay offers you this interesting new proposal. Consider the advantages of having *us* compound it for you via the low temperature flake process:

1. ***You avoid*** **unpleasant dry-mixing of caustic compounds.**
2. ***You free*** **mixing equipment so you can handle more non-caustic business.**
3. ***You get*** **a product superior to hot flaked or ground ones. Unlike the usual flaking operation, heat-sensitive organic materials can be added. Your Solvay®-compounded alkali will be uniform in composition . . . non-caking . . . dustless . . . readily soluble . . . stable in transportation and storage.**

If you make an industrial cleanser, metal cleaner, washing compound or the like, find out how America's foremost producer of alkalies can work for you. Just mail the coupon.

Sodium Nitrite • Calcium Chloride • Chlorine • Caustic Soda • Caustic Potash Potassium Carbonate • Sodium Bicarbonate • Chloroform • Methyl Chloride Soda Ash • Vinyl Chloride • Ammonium Chloride • Methylene Chloride • Carbon Tetrachloride • Snowflake® Crystals • Monochlorobenzene • Ortho-dichlorobenzene Para-dichlorobenzene • Ammonium Bicarbonate • Hydrogen Peroxide • Aluminum Chloride • Cleaning Compounds • Mutual® Chromium Chemicals

Allied Chemical

SOLVAY PROCESS DIVISION
61 Broadway, New York 6, N. Y.

SOLVAY branch offices and dealers are located in major centers from coast to coast.

SOLVAY PROCESS DIVISION DM-10
ALLIED CHEMICAL CORPORATION
61 Broadway, New York 6, N. Y.

Please send:

☐ Information Service Bulletin—"Advantages of Solvay's Unique Low Temperature Flake Process."

☐ Your representative to discuss my alkali product.

Name_____

Position_____

Company_____

Phone_____

Address_____

City_____ Zone_____ State_____

Oleic Acid

may not *dazzle* you....but...

...its enormous potential does deserve a niche in your mind, especially if your research covers the fields where oleic acid has already proved its capabilities: soaps and detergents, cosmetics and toiletries, polishes and cleaners, textile materials, lubricants, rubber goods, surface coatings, flotation products, and many other allied fields.

You see, oleic acid, though not a new or exotic material, *is* a versatile chemical workhorse, possessing a future fully as remarkable as its past. There is no foreseeable end to applications suggested by its ethylenic linkage and carboxyl radical.

To further interest you, the long-term economic outlook for oleic acid is very bright indeed. Here is a substance that is produced from abundantly available animal tallow . . . that is relatively inexpensive and stable in price . . . that can be supplied in many grades, technical to extremely high purity.

What can Oleic do?

Oleic acid reactions and properties are many, as you know. And, in review, they present an attractive list of chemical opportunities for a wide variety of development and research programs. In fact, oleic acid may present the very solution *you* are seeking, so we suggest you not overlook these basic reactions involving oleic acid.

Saponification

The carboxyl group reacts readily with alkalis to form both water soluble and insoluble soaps (salts). Soluble soaps are used as shampoos, industrial paste soaps, hand soaps, emulsifiers for polishes, waxes, cleaners, and buffing compounds. Insoluble soaps find their way into vinyl stabilizers and paint driers.

Esterification and Condensation

Oleic acid forms esters readily with the great variety of alcohols, glycols, glycerine and other polyols. Its color stability resists the darkening effect of processing heat and its long chain gives a desirable balance of hydrophilic and hydrophobic properties to surface-active materials.

The utility of esters and condensates is wide in scope, encompassing emulsifiers, detergents, plasticizers, lubricants, hydraulic fluids, wetting agents, sudsing agents, and softeners.

Double Bond Reactions

The activity of the unsaturated linkage between the 9th and 10th carbon atoms widens considerably the utility of oleic acid compared with saturated materials. Of the many reactions possible, sulfation, hydrogenation, oxidation, halogenation and epoxidation have proven the most fruitful. Sulfonated oleic acid and its esters for textile products are good examples of commercial utility.

Physical Nature

Because of its oily nature, oleic acid and many of its derivatives have long been popular lubricants or lubricant additives. Textile lubricants for both natural and synthetic fibers is a prime example of a use based on its physical nature, and so is carbon paper, which employs oleic acid as a dye solubilizer and plasticizer.

Why Emersol® Oleic Acid?

Today, large quantities of very high quality oleic acid are available from a good many producers. But Emery, having pioneered and specialized in fatty acids for over 100 years, has maintained a distinct technological edge in the refinement of oleic acids. Thanks to the modern high pressure splitting process and the Emersol Process of selective solvent crystallization, Emery has now pushed purity frontiers almost to their theoretical limits. That's why Emersol Oleic Acid offers you many little "extras" in performance—*at no more cost than similar competitive grades.*

Original Color

In many premium products, such as high quality toiletries, lack of color is the hallmark of purity. In applications where light color is essential, Emersol Oleic Acid's extra lightness can be easily proved, grade for grade, by either spectrophotometric or colorimetric methods.

Color Stability

Processing heat unfortunately tends to discolor all oleic acids to a greater or lesser degree depending on purity. Color stability is one of Emersol Oleic Acids' outstanding characteristics, effectively resisting color degradation during manufacture. By comparison testing you can prove this for yourself with the new American Oil Chemists' Society Test Method L 15a-58.

Oxidation Stability

Emersol Oleic Acid effectively resists attack by air even through long storage periods. This means more protection against deterioration through changes in color, clarity, emulsion, texture and consistency. So, if your product faces a shelf life problem, Emersol Oleic Acids are your best protection.

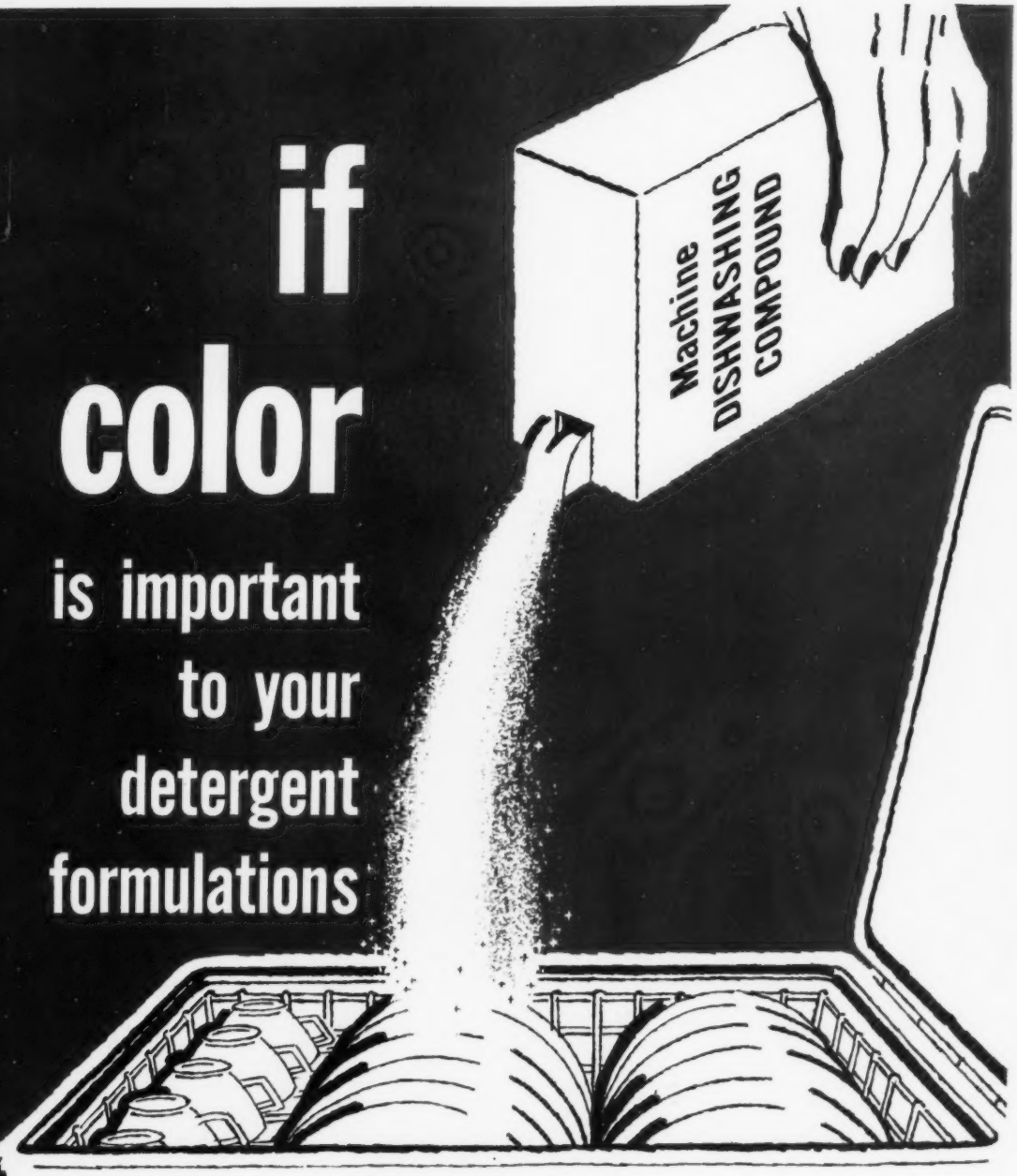
Samples and Literature

Why not find out more about the special advantages of Emersol Oleic Acid. We'll be happy to send you evaluation samples of Emersol 233 LL (low linoleic), Emersol 220, 221 (double distilled), Emersol 210, 211, 213 (single distilled) or a copy of our 24-page Emeryfacts titled "Emersol Oleic Acids," the only complete treatise available on oleic acids. Write Dept. S-1.

FATTY ACID SALES DEPARTMENT / EMERY INDUSTRIES, INC., Carew Tower, Cincinnati 2, Ohio
Vopcolene Division, Los Angeles—Emery Industries (Canada), London, Ontario—Export Department, Cincinnati

Emery

if color is important to your detergent formulations



use DRYMET®

(COWLES ANHYDROUS SODIUM METASILICATE)

It's whiter, cleaner, tints easier — more uniformly, dissolves fast.

Cowles **CHEMICAL COMPANY**

7020 Euclid Avenue, • Cleveland 3, Ohio

News...

PEOPLE · PRODUCTS · PLANTS

Moore Lava Plant Manager

* * *

New Fuller Brush Plant

* * *

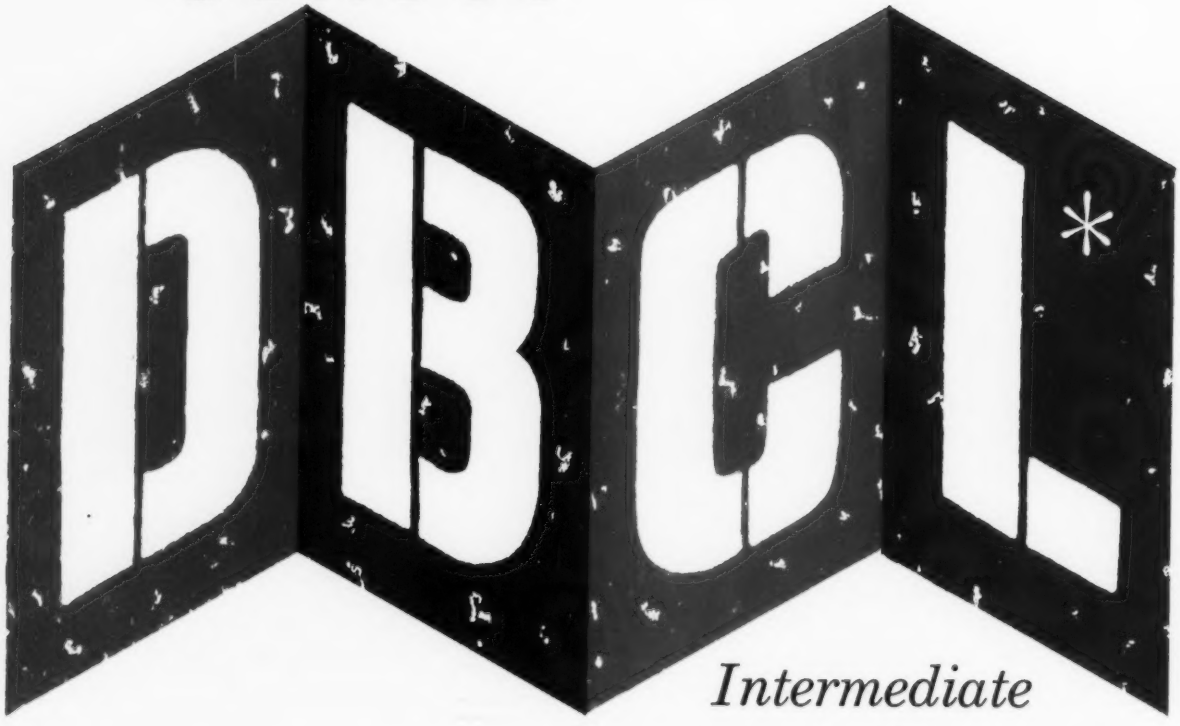
Fels Advances Sletsky

* * *

New Selig Co. Officers

Neil H. McElroy has resigned Procter & Gamble Co. Corporate as chairman of the board. President of P&G until he became U.S. Secretary of Defense in 1957, he succeeds R. R. Deupree who has been named honorary chairman of the board of directors of P&G.

NEW! CONOCO



Intermediate for cationic detergents now available in commercial quantities from

CONTINENTAL OIL COMPANY

***TYPICAL PHYSICAL PROPERTIES**

Specific Gravity at 60°F	0.965
Apparent Molecular Weight	292
Activity	Approx. 95%
Minimum Activity	90%
Flash Point (C.O.C.)	355°F.
Viscosity S.U.S. at 100°F	105
Pour Point	Less than −5°C.

CONOCO

For chemicals with a head start on the future . . . count on CONOCO® !

CONOCO DBCL (dodecylbenzyl chloride, technical grade) reacts with tertiary amines to form cationic surface-active agents—known chemically as "quaternary ammonium salts." Quaternaries are used as the active ingredients in sanitizer preparations, as textile softeners, and as antistatic agents for fibers, plastics, and paper. Nonionic surface-active agents may also be made by reacting CONOCO DBCL with the appropriate polyglycol.

For samples and further information, just send a request on your letterhead.

CONTINENTAL OIL COMPANY, PETROCHEMICAL DEPARTMENT
1270 AVENUE OF THE AMERICAS, NEW YORK 20, NEW YORK

News

D-Y Transfers Melton

Earl O. Melton was recently transferred to Nashville, Tenn., by Davies-Young Soap Co., Dayton, O.

Earl O. Melton

Mr. Melton was appointed a sales representative by the company in 1958 and had been covering the eastern Tennessee and North Carolina areas. In his new post, he promotes the sale of the firm's line of "Buckeye" products to distributors in Tennessee. He has had experience in the chemical, cleaner, and wax industries.

—★—

Fuller Dedicates Plant

Fuller Brush Co. dedicated a new $6.5 million plant in Fuller Park, West Hartford, Conn., this month. Situated on an 84 acre site, the new plant includes several buildings containing an aggregate of 286,000 square feet with executive offices of more than 75,000 square feet. Automated for its manufacturing, handling, storing, and shipping operations, the facilities are equipped with electromechanical loading docks that can move in any of four directions. A double track railroad siding runs into the interior of one of the plant's buildings. The new facilities are divided into five manufacturing departments and are reported to make possible an upgrading of every segment of the company's output with emphasis on changes and expansion of the product lines.

—★—

O-Cedar Appoints Two

The appointments of Howard S. Andrews as manager of new products and Russell E. Skallerup as head of the marketing research department were announced recently by O-Cedar Division of American-Marietta Co., Chicago. Mr. Andrews was formerly with Oneida, Ltd., Oneida, N. Y., silver firm, as manager of product planning for the melamine dinnerware division. He is now responsible for the development and coordination of O-Cedar's new products program. Previously with Crane Co., Chicago, in marketing research work, Mr. Skallerup coordinates market research for O-Cedar consumer and institutional products.

—★—

McElroy P&G Chairman

Neil H. McElroy was elected chairman of the board of Procter & Gamble Co., Cincinnati, O., last month, succeeding R. R. Deupree. At the same time Mr. Deupree was elected honorary chairman of the board. Mr. McElroy was president of P&G from 1948 until 1957, when he resigned to become Secretary of Defense. He was succeeded by Howard Morgens, who continues in that position. Executive responsibilities in the company will be shared by Mr. Morgens and Mr. McElroy, according to P&G.

The company also announced that Harry E. Coombe resigned as a director, a position he had held since 1951.

Mr. McElroy joined the firm in 1925 and Mr. Deupree started with P&G in 1905 succeeding William Cooper Procter as president in 1930. Mr. Deupree became board chairman in 1948 when Mr. McElroy was elected president.

Lever Advances Moore

Gordon E. Moore has been advanced to manager of the St. Louis, Mo., plant of Lever Brothers

Gordon E. Moore

Co., New York, it was announced recently by G. Lowell O'Daniel, company production manager. He replaces Maynard B. Bemis, who retired Jan. 1 after 42 years in the soap industry.

Mr. Moore, manufacturing superintendent at the St. Louis plant since 1953, has spent 33 years in various production phases of soap making. He began his career with Monsanto Chemical Co., St. Louis, as a chemist. Later he joined the Gold Dust Corp. which became the Hecker Products Co. When Hecker was acquired by Lever in 1939, Mr. Moore became manufacturing superintendent, and later served at Lever plants in Baltimore, Md., and Cambridge, Mass., and company headquarters in New York. In 1953 the present St. Louis plant was opened on a 27-acre site in Pagedale, and Mr. Moore returned as manufacturing superintendent.

Mr. Bemis started his career with Procter & Gamble Co., Cincinnati, in 1917 as a soapmaker. In 1925 he joined Colgate-Palmolive-Peet Co., New York, and moved to Lever in 1932. He was named St. Louis plant manager in 1943.

SAVE
A DOLLAR
PER DRUM
ON YOUR
PERFUMING WITH

PILOT HD-90
FLAKE

Akyl Aryl Sulfonate...90% Minimum Active

Each drum of Pilot HD-90 represents one dollar you can save in *odor masking and perfuming.* That's because HD-90 is an *odorless, colorless* drum-dried flake; and consequently may be perfumed and dyed at minimum expense—*usually a dollar per drum less!*

You'll save in other ways, too, formulating with Pilot HD-90. For example: HD-90 is 90% plus active—offering more detergent suds than any other material at a competitive price, and doing the kind of cleaning on many hard surfaces that no other can do at any concentration! This high performance means less material required to maintain your product quality.

And you'll like working with HD-90: it's dust-free, dry flowing and remains that way even after long periods of storage; and HD-90 is kind to your plant during the troublesome hot summer months because it is stable in any weather.

Make Pilot HD-90 your cornerstone for all dry compounding. *Write for literature and samples now.*

LEADS THE WAY TO BETTER PRODUCTS
PILOT

PILOT *California Co.*

215 WEST 7th STREET • LOS ANGELES 14, CALIFORNIA

Demee Joins Lever

Leon A. Demee has joined the armed forces and foreign division of Lever Brothers Co., New

Leon A. Demee

York, as export manager, it was announced last month by Donald G. C. Thomas, division general manager. Formerly assistant general manager for International Standard Brands in Venezuela which he joined in 1950, Mr. Demee served as plant manager in Buenos Aires before moving to New York to take charge of new product marketing development. Later he was Venezuelan sales manager before being named assistant general manager.

—★—

In Whistlclean Post

Victor F. De Vinney was recently appointed sales manager for Whistlclean Corp., a subsidiary of L. Sonneborn Sons, Inc., New York, petroleum refiners and manufacturers of chemicals and building products. Whistlclean manufactures and distributes a complete line of industrial detergents. Before joining Whistlclean, Mr. De Vinney was New York district sales manager for Turco Products, Inc., Los Angeles.

—★—

Fels Advances Slutzky

David H. Slutzky has been appointed middle Atlantic sales division manager of Fels & Co., Philadelphia, it was announced recently by Frank H. Jelinek, national sales manager. Mr. Slutzky joined Fels 10 years ago as a retail salesman and advanced to the position of Philadelphia district manager. In his new post he supervises sales activties in the following markets: Baltimore, Washington, Philadelphia, Scranton, Pittsburgh, Buffalo, Syracuse and Toronto, Canada.

—★—

Dutch Remove Import Curbs

Soap was among 12 items for which the Netherlands government removed import restrictions on Jan. 1, the U. S. Department of Commerce announced late last month.

—★—

Johnson's Sees 1960 Boom

S. C. Johnson & Son, Inc., Racine, Wis., is planning an accelerated program of product diversification in 1960 in an effort to move up to a record level of business. In a 1959 year-end statement, H. F. Johnson, chairman, and Howard M. Packard, president, reported that the company's domestic sales had increased 56 per cent since a product diversification program began in 1954. Sales in 1959 increased 21 per cent over the previous year and a rise of about 10 per cent is expected in 1960, Mr. Packard stated. Although well-established products provide a substantial part of the company's net income, products introduced in the last six years now account for about 56 per cent of sales, he said. Some of the newer offerings, in traditional fields, include a pressure-packed dusting wax ("Pledge"), a self-polishing floor wax ("Klear"), and an aerosol automobile polish ("Instant J-Wax"). Others are in new non-wax fields such as insecticides, air fresheners, a porous plastic called "Porelon," and a new chemical intermediate. In their report the Johnson executives also noted new products introduced in 1959; the work of the research and development division on new product possibilities; and the company's $4-million building program including a million dollar aerosol plant nearing completion at Racine.

Jones Nalco President

Thomas C. Jones became president of Nalco Chemical Co., Chicago, early this month and

Thomas C. Jones

Joseph A. Holmes, former president, became vice-chairman of the board of directors, a position that had been vacant.

A Nalco director since 1953 and a member of its executive committee since 1954, Mr. Jones had been associated with the Aluminum Company of America for over 40 years and was manager of its Chicago district.

—★—

Stanley Advances Three

Three advancements in the manufacturing division of Stanley Home Products, Inc., Westfield, Mass., were announced last month by Joseph W. Palmer, vice-president of manufacturing. They include Ciro Petrucelli as supervisor of production in charge of the brush, chemical and metal parts department; John Wilcek as engineering department head; and Nicholas Violante as supervisor in the industrial engineering section. Mr. Petrucelli joined Stanley in 1935 and had been supervisor of the brush shop since 1955. With the company since 1955, Mr. Wilcek is now responsible for the plant engineering and industrial engineering functions of the plant. Mr. Violante has been with the firm since 1937 and served most recently as group leader of project engineers, industrial engineering section of the engineering department.

AROMATICS of DISTINCTION for MANUFACTURERS of SOAP

EUGENOL

FRESH, SPICY and POWERFUL

LINALYL ACETATE

90-92% ESTER from BOIS DE ROSE

CITRONELLOL

CLEANER, SMOOTHER FREED OF ALL IMPURITIES

These aromatics of our own manufacture are produced by methods and under conditions that absolutely assure their superior quality and dependable uniformity, at prices competitive with any comparable grades. All three are now in large scale production at our Clifton plant. For purposes of comparison and evaluation, write for FREE test samples.

BRINGING YOU THE BENEFITS OF ORGANIZED RESEARCH...

FRITZSCHE BROTHERS, Inc.

76 NINTH AVENUE NEW YORK 11, N. Y.

Branch Offices and *Stocks: Atlanta, Ga., Boston, Mass., *Chicago, Ill., Cincinnati, Ohio, Greensboro, N. C., *Los Angeles, Cal., Philadelphia, Pa., San Francisco, Cal., St. Louis, Mo., Montreal and *Toronto, Canada; *Mexico, D. F. and *Buenos Aires, Argentina. **Factories:** Clifton, N. J. and Buenos Aires, Argentina.

Oscar Burke Dies

Oscar Meech Burke, 76, retired president of Manhattan Soap Co., New York, and a director of Purex Corp., Ltd., South Gate, Calif., died Nov. 30 in St. Luke's Hospital, New York. Mr. Burke headed the soap firm in 1956 when all its stock was acquired by Purex and it became the Manhattan Soap Division of Purex. Mr. Burke is survived by his wife, Mrs. Marguerite Stone Burke; a son, Edwin M. Burke; and four grandchildren.

★

Soapers Top TV Advertisers

Six of the ten top television advertisers in gross time expenditures for the first nine months of 1959 were soap and chemical specialty manufacturers. Leading the list were Procter & Gamble Co., Cincinnati, Lever Brothers Co., New York, Colgate-Palmolive Co., New York, and American Home Products Corp., New York. In eighth place was Bristol-Myers Corp., Morris Plains, N. J., and Adell Chemical Co., Holyoke, Mass., was in tenth place. Expenditures increased 19.3 per cent over the 1958 period, according to the Television Bureau of Advertising, Inc., New York, which compiled the listings.

Dollar expenditures compared with the corresponding period last year were: Procter & Gamble Co., $72.6 million, up from $62 million; Lever Brothers Co., $36.9 million, up from $27.9 million; Colgate-Palmolive Co., $28.5 million, up from $25.8 million; American Home Products, $27.6 million, up from $18.6 million; Bristol-Myers, $14 million, up from $13.8 million; and Adell Chemical, $13.7 million, up from $8.4 million.

★

Name Lever Product Mgrs.

Joseph R. Cross and Robert E. McGhee have joined Lever Brothers Co., New York, as product managers in the Lever division, it was announced last month by Thomas S. Carroll, division vice-president of marketing. Formerly a vice-president of Compton Advertising Agency, New York, Mr. Cross worked on a variety of packaged goods accounts. Mr. McGhee was with Procter & Gamble Co., Cincinnati, for six years as a salesman and brand manager before joining Lennen & Newell, Inc., New York advertising agency, in 1957.

Joseph R. Cross

★

Stanley Station Relocates

The Harrisburg, Pa., distributing station of Stanley Home Products, Inc., Westfield, Mass., recently moved into new and larger quarters at 698 Angenese St., according to William H. Naylor, vice-president and director of distribution. The new building has 40,000 square feet of floor space and is being used exclusively for distribution and warehousing. It is one of 18 Stanley stations located throughout the U. S.

Robert E. McGhee

Lehn & Fink Names Two

The appointments of Roger M. Kirk, Jr., as sales manager and Samuel F. Melcher, Jr., as group brand manager in the Lehn & Fink Division of Lehn & Fink Products Corp., New York, were announced recently by Edgar Nelson, division general manager.

Formerly vice-president in charge of sales and advertising for Cook Chemical Co., Kansas City, Mo., Mr. Kirk succeeds Robert W. Naething, who resigned Dec. 31.

Mr. Melcher comes to Lehn & Fink from O. E. McIntyre, Inc., New York direct mail organization. Prior to that he was director of advertising and merchandising for a consumer products division of Olin-Mathieson Chemical Corp., New York, and also has been associated with Mennen Co., Morristown, N. J., and Colgate-Palmolive Co., New York. In his new post he directs marketing for "Lysol" brand disinfectant, "Hinds Honey and Almond Cream," and new products developed within the division.

★

O-Cedar Adv. Program

The O-Cedar division of American-Marietta Co., Chicago, has entered its third season of sponsorship on the Jack Paar television show, it was announced last month by Phil Varchetta, O-Cedar advertising and sales promotion director. Complementing the company's television coverage for its dust and sponge mops and plastic brooms, is an advertising schedule in the "This Week" Sunday supplement.

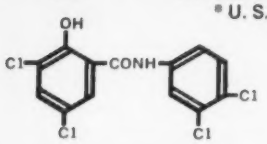
★

House Organ in 40th Year

The external house organ of Philadelphia Quartz Co., Philadelphia, called "Silicate P's & Q's," began its 40th year of continuous publication this month. A monthly letter, the sheet presents facts about sodium and potassium silicates and their uses. C. H. Jeglum, manager of the company's research and development department, is editor of the house organ.

Irgasan BS200

tetrachlorosalicylanilide*
* U. S. Pat. 2703332



Controls gram positive and gram negative bacteria.
Inhibits fungal growth.
Substantive to skin, textiles.
Easy to demonstrate or trace (fluoresces under ultra-violet light).
Economical.

For use in:
deodorant soaps
hard surface sanitizers
household specialties
laundry detergents, rinses
dry cleaning
hospital cleaners
anti-dandruff shampoo
surgical soap

Write for literature and samples today

Geigy Industrial Chemicals

Division of Geigy Chemical Corporation
Saw Mill River Road, Ardsley, N.Y.

In New Fuld Bros. Post

Jack Gurey has been appointed sales representative in the northeast for Fuld Brothers, Inc., Baltimore, it was announced last month by James Selway, vice-president of sales. Mr. Gurey also assists in the metropolitan New York area. In the sanitary maintenance field for more than 12 years, Mr. Gurey has been associated with Fuld for about eight years. He has had experience in sales and merchandising and in the planning and production of private brand paper labels and lithographic-type applications.

—★—

Lehn & Fink Names Smith

Earl M. Smith has been appointed manager of the "Young Look" cosmetic line of the Lehn & Fink division, Lehn & Fink Products Corp., New York, it was announced last month by Edgar Nelson, division general manager. Formerly eastern area manager for Beauty Counselors, Inc., New York, Mr. Smith has been in direct selling management posts since 1946 mostly in the cosmetic field.

—★—

New Heyden Chemical V.P.

David X. Klein, technical director of Heyden Chemical Division, Heyden Newport Chemical Corp., New York, has been appointed a divisional vice-president, it was announced last month by S. Askin, president. Mr. Klein, technical director for the recently formed division since last June, has been responsible for the division's expansion and new products program. He was formerly manager of research at the company's Garfield, N. J., laboratories.

—★—

New Selig Officers

Selig Co., Atlanta, has elected three new officers it was announced recently by Simon S. Selig, Jr., president. Elected at the annual stockholders meeting were William F. Bode, as vice-president and general manager; Alvin Hamburger, as vice-president in charge of sales, and Robert Dennard, as secretary and assistant treasurer.

Mr. Bode has been with Selig since 1947 and formerly was advertising manager and general manager.

General sales manager since 1954, Mr. Hamburger became associated with Selig in 1948. Earlier he had represented Selig in eastern North Carolina.

Mr. Dennard has been comptroller since November, 1958. He is an attorney and certified public accountant. Before joining Selig Mr. Dennard was assistant controller of Long Corp. and a partner in Ralph M. Braswell Co.

Stock dividends of $1 a share for Selig Co. of Atlanta and $2 per share for Selig Co. of Texas were declared for the 63rd year of the company's operation. In that time Selig stock has appreciated in value approximately 15 per cent.

DCAT Slates Meeting

The Drug, Chemical and Allied Trades Association has scheduled its 70th annual meeting for Sept. 15-18, at the Sagamore Hotel, Bolton Landing, N. Y. Paul J. Cardinal, vice-president of Hoffman-LaRoche, Inc., Nutley, N. J., has been named general convention chairman.

—★—

Charles Ward Dies

Charles G. Ward, 76, former northeastern division sales manager for The American Agricultural Chemical Co., New York, died Dec. 31 at his home in Hingham, Mass. Mr. Ward joined the company in 1900 and retired in 1952. He is survived by his wife, Cornelia, and three sons, Steven D., who is a division production superintendent in New York for A. A. C., Dudley A., and Charles G., Jr.

—★—

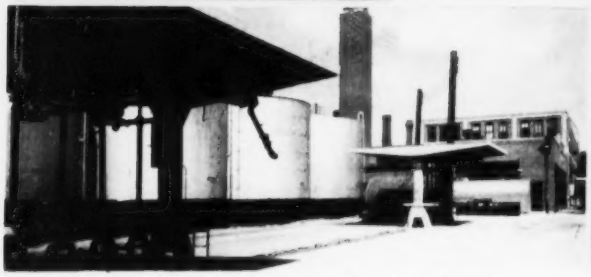
New Guardian Bactericide

A new bactericide and fungicide called "Surtenol" made by Guardian Chemical Corp., Long Island City, N. Y., was recently incorporated into a cosmetic product of Avon Products, Inc., Suffern, N. Y. Said to be mild, of light color, and pleasant odor, "Surtenol" is reported to be virucidal in low concentrations. Guardian states that other cosmetics and pharmaceutical firms are contemplating using the bactericide in their products.

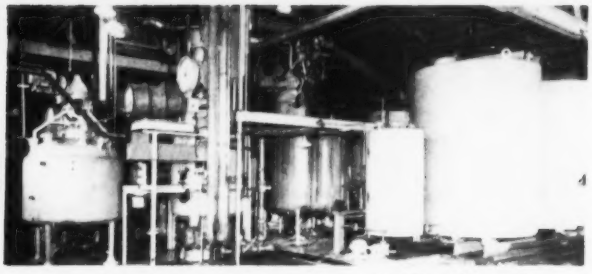
William F. Bode

Alvin Hamburger

Robert Dennard



Ample tank storage for efficient bulk material handling.



Modern equipment assures product consistency and uniform high quality.

We are happy to announce that we have moved into our new plant at 1301 W. Belden Ave., Chicago 14, Ill.

With our new enlarged plant and laboratory facilities, increased bulk storage and warehouse space plus additional new manufacturing equipment we are more than ready to handle your orders in the most efficient manner possible.

Krystall Chemical Co., primarily a manufacturer of detergent intermediates also offers extensive compounding and packaging facilities. We have installed another new, high speed automatic filling line for handling either plastic bottles or cans.

Our new plant has bulk storage for up to 600,000 gallons of raw materials and finished products. One of the main features is bulk storage handling for stabilized liquid sulfur trioxide. Warehouse space accommodates over 2,000 drums of finished materials with 600 feet of railroad siding. We have facilities for simultaneous loading and unloading of 10 trucks and 5 railroad cars.

We wish to express our appreciation for the loyalty of our many friends in the Chemical Industry who have helped make possible our steady and rapid growth. You can depend on us to make every effort to also merit your continued confidence.

SOME OF THE EXPANDING KRYSTALLEX SERIES . . .

KRYSTALLEX S-63. specially purified sodium dodecylbenzene sulfonate. Clear and odorless liquid. Excellent base for clear liquid formulations such as liquid dishwashing detergents

KRYSTALLEX S. A conventional dodecylbenzene sulfonic acid.

KRYSTALLEX S-75. An ammonium alkyl phenoxyethylene sulfate.

KRYSTALLEX LA. A 100% active non-ionic fatty acid alkanolamide manufactured for use as a foam stabilizer.

KRYSTALLEX CD. An unmodified coconut fatty acid alkanolamide useful for thickening, etc.

KRYSTALLEX CDA. A modified coconut fatty acid alkanolamide used in scrub soap concentrates. Has outstanding resistance to hard water.

KRYSTALLEX C. sodium lauryl sulfate—characterized by its uniform high viscosity—excellent base for creme shampoos.

KRYSTALLEX A. A sodium lauryl sulfate with a very low salt content and low viscosity.

KRYSTALLEX T. A triethanolamine lauryl sulfate. High activity, low cloud point, very light color and color stability toward light.

KRYSTALLEX S-26. A new detergent manufactured exclusively for shampoo use.

Krystall chemical co.

Phone Bittersweet 8-2325 • 1301 W. Belden Ave., Chicago 14, Ill.

"SPECIALTY ORGANIC CHEMICALS"

H. Truxtun Emerson Dies

H. Truxtun Emerson, 79, retired manager of the glycerine department of Procter & Gamble Co., Cincinnati, and secretary of the company from 1940 to 1950, died Dec. 1. Mr. Emerson joined Procter & Gamble in 1899 and served in various positions until 1908 when he became personal secretary to William Cooper Procter, president. He was named assistant secretary of the company in 1914 and became manager of the glycerine department in 1917. Mr. Emerson assumed additional duties as company secretary in 1940 and six years later relinquished his post as manager of the glycerine department to devote full time to being secretary. He retired in 1950.

H. Truxtun Emerson

—★—

New Carbide Nonionic

Availability in developmental quantities of a new alkyl phenyl polyethylene glycol ether surface active agent was announced recently by Union Carbide Chemicals Co., 30 East 42nd Street, New York 17. "Tergitol Nonionic E-35" was developed specifically for use with dry alkaline materials such as flake caustic or sodium metasilicate, according to the manufacturer.

The new material is suggested for use in bottle washing, metal cleaning, and automatic dishwashing formulations. It is said to exhibit good stability when stored in flake caustic compositions for prolonged periods and is claimed to have low foaming and good wetting properties. By lowering the surface tension as the electrolyte concentration is reduced during rinsing, the surfactant is said to promote streak free drying.

"Tergitol Nonionic E-35" comes in 55-gallon drums at 48.5 cents per pound in the East and at 49.5 cents per pound in the Western United States. Prices for other quantities and other pertinent information are available from Carbide.

—★—

Monsanto Expands Line

The inorganic chemicals division of Monsanto Chemical Co., St. Louis, Mo., recently announced the expansion of its line of nonionic surface active agents with the addition of alkyl phenol-based ethylene oxide condensates. Monsanto already markets alcohol and mercaptan-based nonionics and claims to be the leading producer of tall oil-ethylene oxide condensates. Interim production of the dodecyl phenol and nonyl phenol-based products is already underway at the Kearny, N. J., and Everett, Mass., plants, according to James E. Crawford, division marketing director. Commercial production is scheduled for February at Kearny and Trenton, Mich.

Cromac Chemical Moves

Cromac Chemical Co., Ltd., recently moved to new quarters at 203 Bentworth Ave., Toronto 19, according to William B. Sten, president. The firm, previously at 174 Bridgeland in Toronto, now occupies a new 16,000 square foot one story building.

—★—

Cowles Men in Sales Course

Cowles Chemical Co., Cleveland, was the first company to enroll its sales personnel in the Field Sales Management Institute to be held at the Sheraton-Cleveland Hotel, Feb. 15-19, 1960, under the joint sponsorship of the Naional Sales Executives International, the Sales Executives Club of Cleveland, and 21 affiliated sales executives clubs in the east-central area. The five-day Institute is one of five sales development programs sponsored by the international group made up of over 30,000 sales executives. It has been conducted nationally over the past three years and is being held in Cleveland for the first time. Enrollment in the Institute sessions is limited to 100 people in the top levels of sales management including field sales supervisors and district managers.

C. C. Bassett, seated at right, signs application enrolling three men from Cowles Chemical Co., Cleveland, in Field Sales Management Institute. Looking on are Russell A. Lawson, seated, chairman of FSMI committee of Cleveland Sales Executives Club; R. G. Johnson, left, sales manager, laundry chemicals department, Cowles Chemical; and Dolph Jansen, Jr., regional director of National Sales Executives International, a cosponsor of the Institute.

"Gotta check everything in making top-grade fatty acids!"

Fatty acids that meet a user's demanding specifications shipment after shipment are essential to the manufacture of consistently fine end products. Constant vigilance by the fatty acid producer is the only way to give the user what he needs in a raw material.

Even the most carefully selected fats and oils may vary considerably in composition as received. Therefore, the maintenance of product quality and uniformity in the fatty acid plant depends on controls and adjustments at each step of manufacture. Visual and analytical laboratory tests must be made on the material in process from beginning to end.

These tests furnish a guide whereby the material is cut and trimmed by removal of impurities, volatiles, residues and color bodies—until the finished product fits the desired specifications.

Laboratory tests are translated into plant control by suitable adjustments of pressure, temperature, vacuum and flow rates in order to expedite removal of all undesirable constituents from the material in process. Manual adjustments and controls are inadequate for the continuous separations taking place. Automation is the only answer. Only by the proper combination of indicator-recorder-controllers, flowmeters and motor valves is it possible to make the minute adjustments necessary for the removal of undesirable components. These adjustments must take place minute by minute, hour by hour, day and night.

Stainless steel and aluminum pumps, lines, valves and tanks must be used in processing and storage. Containers—if they are steel drums—must have baked-on liners impervious to fatty acids. Paper bags and fiber drums impregnated with special lining materials serve the same purpose. And of course the user, too, must handle the fatty acids received with care.

A. Gross & Company has been exercising this care in the manufacture of fatty acids since these compounds were first introduced commercially. The systems and safeguards developed over the years in the A. Gross plant, to assure exact adherence to demanding specifications, have helped to build A Gross' reputation as a producer of top grade fatty acids. For information on A. Gross fatty acids such as **Groco Heat-Stable Red Oils & White Oleines**, send for the brochure "Fatty Acids in Modern Industry."

a. gross
& COMPANY

295 Madison Ave., New York 17, N. Y. • Factory: Newark, N. J.
Distributors in principal cities • Manufacturers since 1837

Evaluate fatty acids made by A. GROSS—send for samples of: STEARIC ACIDS • RED OILS • WHITE OLEINES • TALLOW FATTY ACIDS • COCONUT FATTY ACIDS • VEGETABLE FATTY ACIDS • HYDROGENATED FATTY ACIDS • HYDROGENATED GLYCERIDES

FMC Handles "Strobane"

The availability of "Strobane" solutions for non-agricultural use was announced last month by Fairfield Chemicals, Food Machinery and Chemical Corp., New York. "Strobane" is a registered trademark of Heyden Newport Chemical Corp., New York. The Fairfield "Strobane" solutions are avaliable in standard 80 per cent concentrates and are being sold to formulators on a delivered basis at new reduced price schedules. Used in a broad range of aerosol insecticides for household and industrial use, " Strobane" is reported to be an effective, fast-acting toxicant and a moth proofing agent. When used in combination with "Pyrenone," Fairfield's piperonyl butoxide and pyrethrins insecticide base, it is said to provide effective control of D.D.T. resistant flies. Complete information may be obtained from Fairfield, 441 Lexington Ave., New York 17.

—★—

Downes in New Post

Daniel D. Downes, formerly assistant sales manager of the distilled fatty acids division of Capital City Products Co., Columbus, O., has been appointed sales manager, it was announced recently by LeRoy Bradford, president. Mr. Downes succeeds E. G. Hibarger, who died Nov. 3.

Capital City, a refiner and processor of vegetable oils for both the non-food and food industries, was established over 75 years ago. Distilled fatty acids produced by the firm are used in chemical specialties, detergents, disinfectants, soaps, cosmetics, etc.

Before joining Capital City, early in 1959, Mr. Downes had been with Dayton (O.) Oil Co. Earlier he had been employed by Brown Oil and Chemical Corp., Staten Island, N. Y.; Allied Asphalt & Mineral Corp., and Newport Industries, Inc., both of New York.

Daniel D. Downes

Dr. John R. Heller, director, National Cancer Institute, speaker at the Nov. 30 luncheon meeting of Drug, Chemical and Allied Trades Association, with luncheon chairman, Robert E. Horsey, left, vice-president of Givaudan-Delawanna, Inc., and William W. Huisking, DCAT president.

—★—

Antara Advances Two

The appointments of Allison K. May as manager of surfactants and related chemicals and Eldin S. Underwood as manager of heavy chemicals were announced last month by James M. Cloney, sales manager of Antara Chemicals, a sales division of General Aniline & Film Corp., New York. Mr. May joined Antara in 1957 as manager of heavy chemicals and was formerly manager of sales research and development for Jefferson Chemical Co., Houston, Tex. Mr. Underwood became associated with the division in 1953 as sales engineer, western regional sales, and was appointed eastern regional manager in 1958. He succeeds Mr. May in his new appointment.

Jefferson Elects McCleary

Rush F. McCleary has been elected to the newly created post of vice-president of research and development at Jefferson Chemical Co., Houston, Tex., it was announced in December by George R. Bryant, president. Dr. McCleary also is responsible for expanding activities in customer technical service and product application. He joined the Texas Co. in 1940 and served in its research and technical department at Beacon, N. Y. In 1956 he went with Jefferson as general manager of the research and development department. Jefferson is owned equally by American Cyanamid Co. and Texaco, Inc., both of New York.

—★—

Safety Cleaning Solvents

A new series of 11 standard cold cleaning solvents for industry is being offered by Harco Chemical Co., Cranford N. J. The formulations range from low cost 'wash up' solvents to blends intended for use in hazardous locations. Versatility and economy due to specialized tailoring for specific needs are claimed for these products which are described in a new technical bulletin. Information includes flash points, relative drying times, uses, and a price schedule.

FLORASYNTH

COVER ODORS AND AEROSOLS

COVER YOURSELF WITH CARE

SOAPS

- OIL BOUQUET C NO. 613
- OIL JASMIN NO. 613
- OIL WILD ROSE NO. 55
- OIL MIMOSA NO. 615
- IMITATION GERANIUMS

AEROSOL BOUQUETS

- OIL GARDENIA NO. 3125
- APPLE BLOSSOM NO. 3122
- OIL SWEET PEA NO. 3123
- MINT BOUQUET NO. 3121
- OIL WISTARIA NO. 3124
- OIL BOUQUET E.T. NO. 3126

SHAMPOO ODORS

- OIL BOUQUET APPLE BLOSSOM NO. 8240
- OIL BOUQUET ALMOND NO. 8262
- OIL CLOVER NO. 888
- OIL CORYLOPSIS NO. 55
- OIL BOUQUET H.O. NO. 8267
- OIL BOUQUET M. NO. 55
- OIL BOUQUET NARCISSUS NO. 55
- OIL BOUQUET WILD ROSE NO. 55
- OIL BOUQUET TT NO. 55

COVER ODORS FOR INDUSTRIAL USES

FOR: ADHESIVES, DISINFECTANTS, INKS—PRINTING AND LITHOGRAPHING, INSECTICIDES, LACQUERS, PAINTS, PETROLEUM BY-PRODUCTS, SPRAYS, VARNISHES AND WAXES.

- COVER ODOR N-2(PE)
- COVER ODOR G NO. 1954(A)
- EUGENOL TECHNICAL(I)
- COVER ODOR P. NO. 1954(S)
- COVER ODOR P.D. NO. 250(P)
- COVER ODOR G.R. NO. 27(PE)
- NUTRALCO NO. 350(I.N)
- COVER ODOR W.P. NO. 400(W)
- COVER ODOR N-22(PE)
- COVER ODOR A.D.H. NO. 200(A)
- FLORATYL BOUQUET NO. 1009(I)
- COVER ODOR P.C. NO. 3127(S)
- COVER ODOR O.B. NO. 1714(I)
- COVER ODOR N-4(I) (PE)
- COVER ODOR J.W. NO. 2404(W)
- COVER ODOR W.A.S. NO. 300(W)
- RUBBER DEODORANT NO. 56
- COVER ODOR R.C. NO. 604(PE)
- COVER ODOR SASS. NO. 1954(A)
- COVER ODOR S.T. NO. 275(P)

Write on your company letterhead for our descriptive cover odor monograph.

Florasynth LABORATORIES, INC.

EXECUTIVE OFFICES: 900 VAN NEST AVE. (Box 12), NEW YORK 62, N. Y. • CHICAGO 6 • LOS ANGELES 21
BOSTON • CINCINNATI • DETROIT • DALLAS • NEW ORLEANS • ST. LOUIS • SAN FRANCISCO
Florasynth Labs. • (Canada Ltd.)—Montreal • Toronto • Vancouver • Winnipeg—Agts. & Dist. in Mexico: Drogueria & Farmacia Mex. S.A., Mexico 1, D.F.

A-Adhesives,
D-Disinfectants,
I-Inks,
IN-Insecticides,
P-Paints,
PE-Petroleum,
S-Sprays,
V-Varnishes,
W-Waxes

Scovill CIBS President

Lamson Scovill of Scovill Manufacturing Co., Waterbury, Conn., was recently elected president of CIBS of New York. Other officers include: Robert Ring, Hewitt Soap Co., first vice-president; J. William Voit, George Lueders & Co., second vice-president; Ray Rogers, Colgate-Palmolive Co., recording secretary; Frank N. Pond, Dominion Products, Inc., corresponding secretary; and Jay Stephens, Daggett & Ramsdell, Inc., treasurer.

Lamson Scovill

New directors of the association are James E. Beyer, Lehn & Fink Products Corp., and Frank Hussey, Evans Research and Development Corp. Featured speaker at the meeting after the election was Leonard Warren, Metropolitan Opera Co. star and recording artist, who spoke on the problems of using proper make-up in relation to various types of stage lighting.

★

New Hooker Headquarters

Nine company officers and other corporate personnel of Hooker Chemical Corp., Niagara Falls, N. Y., will move to the company's new corporate headquarters at 666 Fifth Ave., New York, about Mar. 1, 1960. Officers who will be transferred are: Thomas E. Moffitt, president; R. Wolcott Hooker, Frank W. Dennis, and Robert E. Wilkin, senior vice-presidents; Ansley Wilcox II, vice-president, secretary and general counsel; Thomas F. Willers, vice-president responsible for the Eastern Chemical, Phosphorus, and Durez Plastics divisions, and for corporate engineering; F. Leonard Bryant, vice-president of research, marketing and general development; Charles C. Hornbostel, controller and Edward W. Mathias, treasurer.

Other executives who will move are: Roger C. Sonnemann, director of industrial relations; William F. Lynch, administrative assistant to Mr. Dennis; Herman Harrow, personnel assistant; and Douglas M. More, associate counsel.

In addition to the corporate group, the New York district sales offices of the Eastern Chemical, Durez Plastics, and Phosphorus divisions will move to the new location. Hooker will occupy the entire 34th floor of the 38-story building which was completed in 1957.

★

PVP/VA Copolymers Data

Vinylpyrrolidone/vinyl acetate copolymers and their uses are described in a new 20-page technical brochure just published by the Acetylene Chemicals Department of Antara Chemicals, Sales Division of General Aniline & Film Corp., 435 Hudson Street, New York 14.

First introduced in 50 per cent ethanol solutions these materials are now available in various forms including solids, emulsions, and other solutions. The ethanol solution is widely used for personal products, including pressure packaged hair sprays, protective and medicinal films and cosmetics, as well as shampoos.

A 50 per cent isopropanol solution is available for aerosol leaf shine sprays for ornamentals, pressure packaged white shoe polish, decorative sprays for non absorbent surfaces, and antitarnish coatings for silver, copper, bronze, etc. A 40 per cent aqueous emulsion is suggested for use in detergents as a soil suspending agent and in agricultural protective plant sprays.

The booklet gives formulations and other pertinent data including viscosities and compatibilities.

McGraw in Onyx Oil Post

Ralph O. McGraw was recently appointed district manager for the midwest territory of Onyx Oil & Chemical Co., Jersey City, N. J. Sales representative in Indiana, Illinois, and Wisconsin for the past five years, Mr. McGraw now is in charge of the company's sales and service office at 140 North Dearborn St., Chicago 2.

Ralph O. McGraw

★

Verley Names Seldner

Abraham Seldner has been appointed director of the special services department of Albert Verley & Co., Linden, N. J., processors of essential oils and aromatic chemicals, it was announced last month by E. J. Strobl, president. In his new post, Mr. Seldner assists customers with the formulation of aerosol products, cosmetics, and household specialties.

★

Tall Oil Acids Data

A new technical brochure entitled " 'Pamak' Fatty Acids from Tall Oil" has just been published by Hercules Powder Co., Wilmington, Del. The 22-page booklet describes tall oil fatty acids, their production, composition, physical properties, and applications. These include disinfectants, cleaners, detergents, corrosion inhibitors, foam control agents, and a number of other consumer and industrial products.

Information on shipping, storing and bulk handling of tall oil fatty acids is included.

SHE WON'T KNOW WHY, BUT...

Every homemaker will be glad you used Jefferson SURFONIC® Surface-Active Agents

You don't expect her to know the technical reasons, but milady can certainly tell you which cleansing products are effective and how they have made her chores easier and simpler than ever before. Name virtually all the items she keeps beneath the kitchen sink, and you have practical applications for the broad modification properties of Jefferson SURFONIC® surface-active agents . . . low-foaming laundry detergents, liquid dishwashing detergents, high-foaming liquid detergents, general purpose cleaners, germicidal detergents, sanitizers, detergent bars, metal cleaners, and a host of other products.

Jefferson Chemical Company's surfactants are nonionic adducts of nonyl phenol (N-series 10 to 300) or tridecyl alcohol (TD-series 30 to 150) and ethylene oxide. The number is a tenfold multiple of the molar ratio of ethylene oxide to the hydrophobic portion of the adduct. SURFONIC® surface-active agents have excellent wetting, detergency, solubility, penetration, dispersion and compatibility properties and are stable over a wide range of conditions. Jefferson nonionic adducts may also be sulfated to produce anionic surface-active agents.

A comprehensive technical bulletin, "SURFONIC® Surface-Active Agents", is available from Jefferson Chemical Company, Inc., 1121 Walker Avenue, P. O. Box 303, Houston 1, Texas.

Ethylene and Propylene Oxides, Glycols, Dichlorides, Carbonates • Ethanolamines
SURFONIC® Surface-Active Agents • Polyethylene and Polypropylene Glycols • Morpholine
N-Alkyl Morpholines • Piperazine • Piperazine Salts • Nonyl Phenol • Caustic Soda
HOUSTON • NEW YORK • CHICAGO • CLEVELAND • CHARLOTTE • LOS ANGELES

JEFFERSON CHEMICALS

Stier Heads Nopco

George G. Stier was elected president of Nopco Chemical Co., Newark, N. J., early this month.

George G. Stier

Formerly vice-president of the company's plastics division at North Arlington, N. J., Mr. Stier joined Nopco in 1932. Other top executive changes at Nopco include the election of Ralph Wechsler, former president, as chairman of the board, succeeding Thomas A. Printon, who continues as a director and member of the executive committee. Harry A. Batley, who served most recently as vice-president of industrial production, was named executive vice-president replacing G. Daniel Davis, who becomes vice-chairman of the board and continues as president of Jacques Wolf & Co., Nopco subsidiary.

★

New Eastman Resins

Three new low molecular weight polyethylene resins have been added recently by Eastman Chemical Products, Inc., New York, to its line of "Epolene" resins. Two of the new compounds are suitable for incorporation into floor polishes. "Epolene LVE," an emulsifiable, low viscosity type polyethylene has a molecular weight of about 1500. Used in floor polishes the new compound is said to impart good anti-slip properties and rebuffability to films cast from the final product.

"Epolene HDE" is the highest density (0.956), low molecular weight (1500) emulsifiable polyethylene now on the market, according to Eastman. Due to its low melting point and viscosity it may be handled as a wax. Self polishing floor polish formulations incorporating this resin are said to deposit an extremely hard film.

The three new resins in addition to the previously established line of four "Epolenes" are now all being manufactured at Eastman's recently expanded production facilities in Longview, Tex.

★

Silver Joins Verley

George Silver has joined the sales staff of Albert Verley & Co., Linden, N. J., processors of essential oils and aromatic chemicals, it was announced last month by E. J. Strobl, president. Formerly with the Polak and Schwarz division of International Flavors and Fragrances, Inc., New York, Mr. Silver covers metropolitan New York, New Jersey, and Pennsylvania.

★

Tarbox in Allied Post

The appointment of Richard P. Tarbox as assistant sales manager, chemical sales, Plastics and Coal Chemicals Division, Allied Chemical Corp., New York, was announced last month by Leon W. Miller, division director of sales. In his new position Mr. Tarbox is responsible for sales of tar acids, tar bases and phenols, synthetic and natural.

Richard P. Tarbox

Brasfield Joins Velsicol

T. W. Brasfield has been appointed director of marketing for Velsicol Chemical Corp., Chicago, it was announced last month by John F. Kirk, vice-president. He comes to Velsicol from Naugatuck Chemical Division, United States Rubber Co., where he held several positions including research plant pathologist, product manager and later sales manager for agricultural chemicals. In his new post, Mr. Brasfield is responsible for all of the company's domestic marketing activities including agricultural and pest control chemicals, resins, solvents, and inorganic chemicals.

T. W. Brasfield

★

Du Pont to Build Plant

E. I. du Pont de Nemours & Co., Wilmington, Del., announced plans last month to build a new plant at Belle, W. Va., for the manufacture of methylamines, basic chemicals used in manufacturing agricultural chemicals, textile fibers and dyes, and pharmaceuticals. Construction will begin early next year and completion is scheduled for the first quarter of 1961. Dimethylamine (DMA), a liquefied gas to be produced at the new plant, is used in the manufacture of fungicides, 2,4-D herbicides, antioxidants, and solvents. In addition, the plant will make the methylamine derivatives dimethylformamide (DMF) and dimethylacetamide (DMAC), solvents for the processing industries.

for better texture, improved appearance, consistent quality...

WITCO COSMETIC-GRADE STEARATES
Witco's cosmetic-grade stearates are widely used to improve adhesion and water-repellency of powders, cold creams, facial creams and ointments... as gelling and emulsifying agents for creams and shampoos...as agents to increase bulk and oil-absorption of cosmetic powders. Witco cosmetic-grade stearates are manufactured to T.G.A. standards.

Add sales appeal to **your** cosmetic products with the following Witco stearates:
Aluminum, Magnesium, Calcium, Sodium, Zinc.

WITCO COSMETIC-GRADE SURFACTANTS
Witco's Emulsol® cosmetic-grade emulsifiers, opacifiers and wetting agents, upgrade your products...give them the **performance-plus** that leads to repeat sales every time.

Witco's Emulsol surfactants include:
EMCOL 4100 Series – flash foamers
EMCOL 5100 Series – alkanolamine condensates, both viscosity builders and foam enhancers
EMCOL E-607 – deodorants, detergent-germicides
EMCOL E-607S – emulsifiers and conditioners
EMCOL MAS – opacifiers
EMCOL 61 – hair conditioners

FATTY ACID ESTERS, STANDARD OR SPECIFICALLY TAILORED TO YOUR NEEDS
EMCOLS MST, CA and MS – glycerol monostearates
EMCOL PS-50 – propylene glycol monostearates
EMCOL RDC-D – diethylene glycol laurate
EMCOL CAD – diethylene glycol stearate
EMCOL DOS – diethylene glycol oleate
EMCOL H-38A, EMCOL H-31A, EMCOL H-35A – polyethylene glycol esters – laurate, oleate, stearate

WITCO CHEMICAL COMPANY, Inc.
122 East 42nd Street, New York 17, N. Y.
Chicago • Boston • Akron • Atlanta • Houston • Los Angeles • San Francisco
Montreal and Toronto, Canada (P. N. Soden & Co. Ltd.) • London and Manchester, England

Appoint Six at Solvay

Six appointments in the sales department of Solvay Process Division, Allied Chemical Corp., New York, which became effective Jan. 1, were announced last month by Arthur Phillips, Jr., Solvay vice-president. Fred P. Boehm and Charles E. Varn have been appointed assistant directors of sales. Robert E. Clagett succeeds Mr. Boehm as Pittsburgh sales branch manager and G. Richard Barclay replaces Mr. Varn as manager of the new Orleans sales branch. Jerome L. Hochenedel has been named manager of the Houston, Tex., sales branch, succeeding S. O. Taylor, who has retired after 33 years with the company. New manager of the organic chemicals section is Richard A. Marshall, who succeeds Mr. Barclay. Messrs. Boehm, Varn, and Marshall make their headquarters at Solvay's New York office.

Fred P. Boehm

Charles E. Varn

★

Otto Haas Dies

Otto Haas, founder of Rohm & Haas Co., Philadelphia, died Jan. 2 at his home in Villanova, Pa. He was 87 years old and had served as the firm's chief executive officer, president and chairman of the executive committee until his retirement Dec. 31, two days before his death.

He is succeeded by his son Fritz Otto Haas, formerly executive vice-president of the firm. The elder Haas had been named honorary chairman at the meeting, which he had called and where he expressed his desire to be relieved of his responsibilities.

Born in Stuttgart, Germany in 1872, and orphaned early in life Otto Haas did not have the means to finish high school. He came to the United States in 1902 and was associated for several years with an export firm dealing in hides.

In 1905 his friend Otto Rohm reported from Germany his discovery of "Oropon" a novel leather treating agent and suggested formation of a business partnership. Otto Haas returned to Germany in 1905 and the Rohm & Haas partnership was established in 1907. As the new firm prospered he came back to the United States in 1909, at which time the American firm was founded. Dr. Rohm remained in Germany as head of the German company.

The growth and expansion of Rohm & Haas has become part of the industrial history of the United States. Synthetic resins, surface active agents, insecticides are just a few of its wide range of activities.

Otto Haas is survived by his wife, Phoebe W. Haas, and his two sons, Fritz O. Haas, now chief executive of the firm, and John C. Haas, vice-chairman of the board, and vice-president of the company. Also surviving are seven grandchildren.

Clem Pennsalt V.P.

Albert H. Clem was recently appointed vice-president of marketing for Pennsalt Chemicals Corp., Philadelphia, a new office created in a move to place more emphasis on its marketing activities. Formerly manager of the chemical specialties division, Mr. Clem is replaced by George R. Lawson who had been director of marketing in the industrial chemicals division. Mr. Clem joined Pennsalt in 1938 as a chemist. Mr. Lawson has been with the firm since 1946 following an association with the Barrett Division of Allied Chemical Corp., New York.

Albert H. Clem

★

O-M Appoints Logan

John O. Logan has been named associate general manager of the chemicals division, Olin Mathieson Chemical Corp., New

John O. Logan

York, it was announced last month by Edward Block, senior vice-president and general manager of the division. A corporate vice-president, Mr. Logan was previously general manager of industrial chemicals.

Five other appointments also were announced. R. G. Edmonds, formerly with the organic chemicals group in New York, has been named coordinator of production for organic chemicals. Previously manager of industrial relations for Blockson Chemical Co. division, Joliet, Ill., P. A. Caruso has been appointed to the same position with the chemicals division. J. F. Newell, who had been coordinator of production for the chemicals division, becomes manager of special projects. New general traffic manager for the chemicals division is Raymond Smego, and Robert L. Taylor has been named to the newly created post of manager of organization and management development.

POLYVINYL CHEMICALS

Specialists In Emulsion Polymers

Ready-to-Package

PLASTIC STARCH

NEOVAC V21C

Formulated with every quality feature to give you a competitive marketing edge

To Give You A Competitive Marketing Edge! Just dilute, add perfume, and bottle! Without any further processing, NeoVac V21C permanent plastic starch is ready for packaging . . . under your brand name! A synthetic plastic resin emulsion, NeoVac V21C has been formulated to provide all the most wanted permanent plastic starch features. It can be handled in conventional equipment. NeoVac V21C is non-yellowing. It retains stiffness through 8 to 10 wash cycles, and irons easily and smoothly, features proven essential through extensive market-research and by practical experience. Plastic starches made with NeoVac V21C have exceptionally good shelf life because they have negligible settling even at bottling strength.

If you've been thinking of adding a profit-maker such as a high-quality permanent plastic starch to your household product line . . . complete information, technical service and samples are available upon request.

POLYVINYL CHEMICALS, INC., 26-3 HOWLEY STREET, PEABODY, MASSACHUSETTS

Carbide Appoints Bagley

Richard W. Bagley was appointed to the "Sevin" product group last month of Crag Agricultural Chemicals, it was announced by Union Carbide Chemicals Co., New York. An entomologist, Mr. Bagley assists in the development of new "Sevin" insecticide under the direction of Richard C. Back at the company's New York office. For five years Mr. Bagley was a member of the cotton insect control research group sponsored by Sociedad Nacional Agraria, Lima, Peru

★

Reilly Index Published

Reilly Tar & Chemical Corp., Indianapolis, Ind., recently published the fifth edition of its chemical index. The eight page booklet contains a comprehensive, but not complete, listing of the chemicals produced by the company, listed alphabetically and according to classes. A copy of the index may be obtained from Reilly, Merchants Bank Building, Indianapolis 4, Ind.

★

Theimer in ACS Post

Ernst T. Theimer was chosen chairman-elect last month of the North Jersey section of the American Chemical Society accord-

Ernst T. Theimer

ing to an announcement by Neil M. Mackenzie, nominating committee chairman. Dr. Theimer is director of research at the Union Beach, N. J., research laboratories of International Flavors & Fragrances, Inc., New York. He serves as chairman-elect during 1960 and will become chairman in 1961. The North Jersey section with 5,800 members is the second largest of the 155 regional sections of ACS.

★

U. S. I. Appoints Two

Roy A. Parker has been named sales division manager in Kansas City, Mo., for U. S. Indus-

R. Parker

J. Longstreth

trial Chemicals Co., New York, it was announced last month by Alden R. Ludlow, Jr., vice-president of sales. With U. S. I. for the past 33 years, Mr. Parker served most recently as manager of the company's Kansas City sales office.

Mr. Ludlow also announced the appointment of Joseph G. Longstreth as manager of the St. Louis, Mo., sales office, reporting to Mr. Parker. Mr. Longstreth joined U. S. I. in 1955 and since that time has been a sales representative in the St. Louis area.

★

Emery Reorganizes Dept.

Reorganization of the development and service department of Emery Industries, Inc., Cincinnati, was announced recently by R. W. Van Tuyle, vice-president of manufacturing, research and development. Three major sections have been established within the department: applications research, which formerly was attached to the research department; product development; and technical service.

W. Meinert

J. D. Farr

R. D. Aylesworth

R. H. Dhonau

These three groups report to Walter T. Meinert, director of development and service, who recently completed an assignment on a

a new source for...
propylene oxide • propylene glycol
polypropylene glycols...

Olin Mathieson is now offering propylene products from extensive new facilities being completed at the Doe Run plant in Kentucky. Propylene Oxide—starting point for the manufacture of propylene glycol and other derivatives. Propylene Glycol—with proved applications in the manufacture of cellophane, for keeping tobacco moist, in food, beverages, drugs, polyester resins, cosmetics and plasticizers. Polypropylene Glycols—used to make foams for crash pads, for garments, refrigeration insulation and to strengthen construction between sheets of aluminum in air frames. For complete information on the new Olin Mathieson propylene polyols—or helpful technical assistance, write to Olin Mathieson.

OLIN MATHIESON
CHEMICALS DIVISION, NEW YORK 22 N. Y.
CHEMICALS

72848

ETHYLENE OXIDE • ETHYLENE GLYCOLS • POLYETHYLENE GLYCOLS • PROPYLENE OXIDE • PROPYLENE GLYCOL
POLYPROPYLENE GLYCOLS • ETHANOLAMINES • GLYCOL ETHERS • SURFACTANTS • ETHYLENE DICHLORIDE

special market development project. John D. Farr has been appointed manager of the product development section. Robert D. Aylesworth is manager of the new applications research section, and Robert H. Dhonau staffs the technical service section.

—★—

New National Carbon V. P.

Charles J. Chapman has been appointed vice-president of marketing for National Carbon Co., division of Union Carbide Corp., New York, it was announced early this month.

CSMA Meeting

(*From Page* 111)

"If no association existed there would be racks of labels in plants for all of the various states.

"In aerosols, there would be competition from unscrupulous fillers, whose products were slack filled.

"No information would be available on legislation.

"There would be no standard test methods.

"Business operations would be more complicated."

In summing up his case for the CSMA, Mr. King said the purpose of the association is "to do the things individual companies can't afford to do."

George W. Fiero, newly elected CSMA president, in receiving the gavel from Mr. King said the presidency of the organization is a "great honor and a great responsibility." He promised to "do everything possible to wield the gavel wisely."

The concluding featuref of the general session was an address by Kenneth McFarland, Topeka, Kans., consultant to General Motors Corp., and former director of education for the Detroit firm.

The Honorable David W. Kendall, special counsel to the President of the United States, speaking at the Dec. 9, luncheon called on the American people to "be ready to tighten belts — to wake up — to lose personal and physical comfort — possibly sacrifice some material standards of living — to compete successfully" with the Russians.

Aerosol Division II

Advantages and shortcomings of containers made from alumium were reviewed in a paper by R. H. McCarthy, Jr., director of sales for the Bradley-Sun Division of American Can Co., Hillside, N.J. The paper, read by Dr. J. M. Jackson of American Can, was persented during the second session of the Aerosol Division on Dec. 9. Although interest in aluminum as a can making material goes back to 1902, aluminum is at an "economic disadvantage as compared with tin plate", according to the speaker. In addition, aluminum is "corrosive for certain products."

On the other hand, seamless cans made of aluminum can be lithographed all around and can be provided with individualized embossed designs on shoulder areas. The seamless construction of aluminum cans provides high bursting strength and also permits continuous internal construction. Additionally, aluminum cans are free from rusting in transit. Another advantage is in weight: a six ounce aluminum can weighs less than an ounce, as against two ounces for steel or tin plate. Impact extrusion is an economically attractive method of making cans.

Problems presented by aluminum containers is the fact that they are less corrosion resistant than tin plate for most products and require internal coatings. Also, it is difficult to obtain adequate bursting and buckling resistance at the ends. Aluminum cans are more vulnerable to denting on the filling line. Finally, aluminum is a more expensive raw material than tin plate and cans made of aluminum require walls of heavier gage, which makes their price higher.

The next feature of the Dec. 9 Aerosol Division session was a symposium on "Solubility." Participants included Paul A. Sanders, Freon Products Division, E. I. du Pont de Nemours & Co.; James A. Brown, General Chemical Division, Allied Chemical Corp., D. C. Geary, Union Carbide Chemicals Co. and Allen B. Reed, Jr., Pennsalt Chemicals Co.

Glycols, glycol-ethers, and polyglycols show promise as solvents for pharmaceuticals in aerosol formulations, particularly as substitutes for ethyl alcohol which sometimes causes undesirable cooling effect or irritation in skin applications, Dr. Sanders said. Topical anesthetics, antiseptics, burn preparations, antibiotic preparations, and similar products for external application are logical products using glycols. Because of their relatively low toxicity, glycols should also be useful in formulation of cosmetic items, he said.

In a paper dealing with the "Effects of Fluorocarbon Propellants and Methylene Chloride on Various Plastics", James A. Brown reported that in general it was found that in substituted methanes swelling is more pronounced with solvents having hydrogen in the molecule, such as methylene chloride and propellant 21, than completely halogenated molecules such as propellants 11 and 12. In substituted ethanes the swelling becomes less as chlorine atoms are replaced by fluorine.

Careful selection of corrosion inhibitors is essential in formulating low cost, water-based, two-phase pressure packaged residual and space sprays, D. C. Geary reported. Deterrents to greater use of these types of aerosols included corrosion of container, incompatibility with propellant, oiliness and dispensing product as coarse, cold, wet stream.

The application of solubility parameters to all solutions that are a combination of a solvent and a polymeric film former represents a considerable advance in pressure packaging technology, Allen F. Reed, Jr., explained in a the final paper of the symposium: "Solubility Parameters and Their Application to Aerosols."★★

Aerosol Market
(*From Page* 155)

sol market. We hope that such a development occurs, but we can't foresast it.

Before examining the forecast sales of principal aerosol products against a total market background, we shall present one more reason why we think the sales of these principal products will continue to increase:

Our 1958 National Consumer Survey showed that the markets for the primary product lines – insecticides, room deodorants, hair spray and shaving lather –are far from being saturated.

1958 National Consumer Survey
Market Saturation for Principal Aerosol Products

—only 45 per cent of the households had purchased insecticides in aerosol form
—only 39 per cent of the households had purchased room deodorants in aerosol form
—only 45 per cent of the households had purchased hair spray in aerosol form
—only 31 per cent of the households had purchased shaving cream in aerosol form

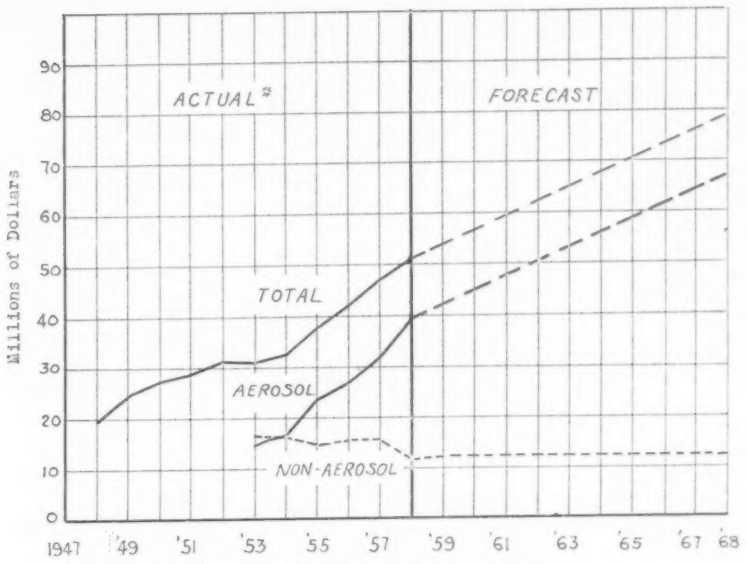
In each case there appears to be a substantial market still to be developed.

Large-scale opportunity also appears to exist for numerous other aerosol products. Purchases of the other aerosol products have been so low that it can be said without reservation that "we haven't scratched the surface." According to our 1958 National Consumer Survey, penetration in terms of households buying twelve other products included in the study was as follows:

1958 National Consumer Survey
Market Saturation for Other Aerosol Products

	%
Window cleaner	22
Moth proofer	19
Cologne	14
Paint or lacquer	8
Shoe polish	7
Spot remover	4
Antiseptics	4
Sun tan lotion	4
Car wax	3
Burn spray	1
Leather conditioner and cleaner	1
Clear protective plastic spray	1

TOTAL DOLLAR MARKET - ROOM DEODORANTS - ALL TYPES



* SOURCE: "FOOD TOPICS" CONSUMER REPORT

Table III

In addition, there are numerous other aerosol products with a large growth potential. Practically every large marketer is increasing research to obtain additional aerosol products that may some day reach the sales volume of the major non-food product lines – insecticides, room deodorants, shave lather, and hair spray.

As mentioned earlier, our market analysts have superimposed their forecasts of principal aerosol product sales on the total markets of these products. Table III illustrates the probable profiles for several of them.

(To be concluded)

DISPENSERS
for
Paste Hand Cleaners

Manufactured by Brightwell Dispensers Ltd., of Newhaven, Sussex, England. Highly efficient and durable. Models available to fit every type of formula.

Free formulation services on paste waterless hand cleaners available when purchasing from sales agents for United States and Canada.

For information write to:

DONNER & COMPANY
135 Henry Avenue, Winnipeg 2, Manitoba, Canada

FOR SOAP, DETERGENTS, CHEMICAL SPECIALTIES...

SPECIFY THESE U.S.I. CHEMICALS

ETHYL ALCOHOL—Whatever uses you have for ethyl alcohol, U.S.I. can supply any quantity of any formulation you specify:

SPECIALLY DENATURED—all formulas—regular or anhydrous

PROPRIETARY SOLVENT—SOLOX®—*regular or anhydrous*

COMPLETELY DENATURED—for industrial use and anti-freeze—regular or anhydrous

PURE ETHYL ALCOHOL—both U.S.P. 190° and N.F. Absolute, tax-free or tax-paid

U.S.I. denaturing plants, warehouses and distribution points form a nation-wide network stretching from Anaheim, Calif., to Newark, N. J. No matter where your plant is, you're probably less than 24 hours' delivery time from one of these shipping centers. Shipments are in 10,000-gallon, 8,000-gallon, 6,000-gallon and 4,000-gallon tank cars, drum carloads and compartment tank cars and tank wagons, 55- and 5-gallon drums, 1-gallon cans.

With each shipment, too, you can count on technical assistance and help with government regulations and forms. U.S.I., oldest producer of industrial alcohol in the country, has provided such service—along with dependable quality and delivery schedules—for over 50 years.

CAUSTIC SODA—Commercial grade 50% liquid caustic soda is shipped from U.S.I.'s Huntsville, Ala., plant in 8,000-gallon and 10,000-gallon insulated and lined tank cars, tank trucks and barges.

CHLORINE—U.S.I.'s Huntsville, Ala., plant ships liquid chlorine in 30-ton and 55-ton tank cars.

ETHYL ETHER—U.S.P., Absolute A.C.S, Refined and Technical grades of ethyl ether are produced at U.S.I.'s Tuscola, Ill., plant. Shipments from Tuscola are made in 8,000-gallon tank cars, drum carloads and less than carload lots, 55- and 5-gallon steel drums. Drums are stocked at U.S.I. warehouses throughout the nation.

OTHER PRODUCTS—Sulfuric acid—all grades, anhydrous and aqueous ammonia, and PETROTHENE® polyethylene resins are available from U.S.I. Contact your nearest U.S.I. sales office for detailed information on grades, packaging and shipping.

It's smart business to know your supplier. We'd like you to know more about us—our plants and sales and distribution system that guarantee highest quality and dependable service . . . our trained technical staff that is always willing to help you with any problem in using our products. It's all in our booklet, "National Distillers and Chemical Corporation Expands in the Chemical Industry." Write for your copy.

At the same time, ask for any specific information you may require on any of the above products. We'll be glad to send you booklets and provide technical data.

U.S.I. INDUSTRIAL CHEMICALS CO.
Division of National Distillers and Chemical Corp.
99 Park Ave., New York, 16, N. Y.
Branches in principal cities

PROFESSIONAL *Directory*

A. EDISON BADERTSCHER
Graduate Entomologist
Consulting — Labels — Products
Thirty years experience in preparation of labels and compounding household, industrial, and garden insecticides, pet products, insect repellents, and soluble plant foods.
Science Center Building
1113 N. Rolling Road
Baltimore 28, Md.
Phone: RIdgeway 7-1044

ALVIN J. COX, Ph.D.
Chemical Engineer and Chemist
(Formerly Director of Science, Government of the Phillipine Islands; Retired Chief, Bureau of Chemistry, State of California Department of Agriculture.)
ADVISOR ON AGRICULTURAL CHEMICAL PROBLEMS AND INVESTIGATIONS
Consultant in reference to spray injury and damage claims including Imports of fruits and nuts, formulas, labelling, advertising and compliance with law.
1118 EMERSON STREET
PALO ALTO, CALIFORNIA

We serve industry through science in the biological field
- ROUTINE
- DEVELOPMENT
- RESEARCH

Scientific Problems? Consult us!
HILL TOP RESEARCH INSTITUTE, INC.
P.O. Box 138, Miamiville, Ohio

Hudson Laboratories, Inc.
Consulting Chemists and Bacteriologists
117 W. 13th St., New York 11, N. Y.
Bacteriology *Chemistry*
Toxicology *Dermatology*
Testing Analysis Formulation **Research**
Disinfectants Antiseptics Sanitizers
Antiseptic and Deodorant Soaps
Advice on labeling and advertising claims
Roger F. Lapham, M.D.
Director
Rebecca L. Shapiro, M.S.
Chief Bacteriologist

INDUSTRIAL BIOLOGY LABORATORIES, INC.
Toxicology
Biology
Chemistry
For The
Food, Drug, Cosmetic & Chemical Industries
P. O. Box 7346, Phila. 1, Pa.
Evergreen 6-6430

laboratory services for the
FOOD and DRUG INDUSTRIES
Drug Evaluation, Food Additive Studies, Chemical and Biological Assays, Clinical Studies, Research
LaWALL & HARRISSON
Div. 0, 1921 Walnut St., Philadelphia 3, Pa.
LOcust 3-4322

LEBERCO LABORATORIES
Consulting Pharmacologists and Bacteriologists
•
ANTI-BIOTIC AND FUNGICIDAL ASSAYS, TOXICITY TESTING, CHRONIC AND ACUTE, EYE AND SKIN IRRITATION STUDIES, HAND WASHING STUDIES, CLINICAL STUDIES, PATCH TESTING
•
123 Hawthorne Street
Roselle Park, N. J.

W. W. LEWERS, Ph.D.
Consulting Chemist and Chemical Engineer
•
All phases of the Chemical Specialty industry—
Plant design, product development.
Research programs planned and directed.
•
Specializing in emulsions, resins, waxes, polishes, cleaners, latex paints.
17 W. 60th St., New York 23, N. Y.
Circle 6-4549

JOHN W. McCUTCHEON
Incorporated
475 Fifth Avenue, New York 17
MU. 3-3421
Consulting Chemists & Chemical Engineers
Specializing in
oils, fats, soaps synthetic detergents and glycerine
Laboratory: 2279 Andrews Ave., New York 68, N. Y.
CY 8-8907

DONALD PRICE, Ph.D.
Consulting Chemist
specializing in
Surface-active agents, detergents, cleaning materials, oils and fats product development
123 E. 92nd St. New York 28, N. Y.
AT 9-9086
Lab. 17 W. 60th St., New York 23
CI 6-4549

— COMPLETE —
LABORATORY SERVICE
Small and Large Animal Research, Toxicity Tests, Human Patch Tests.
Bacteriology—Screening, Testing. Research—Bactericides, Fungicides
Chemistry—Visible, Ultraviolet, Infrared Spectroscopy, Chromatography.
New Products. Pilot Plant.
Write for Brochure
SCIENTIFIC ASSOCIATES
3755 FOREST PARK AVE.
ST. LOUIS 8, MO. JE. 1-5922

RESEARCH AND DEVELOPMENT
Chemical and Engineering Consultants
Toxicology, Engineering, Analyses, Market Research
Soap & Syndet Evaluations.
Chemical Specialties
Send for free brochure: "How to Develop Special Chemical Products."
SNELL
Foster D. Snell, Inc.
29 W. 15th St., N.Y. 11, N.Y.

Some imitate...

FRIES & FRIES INNOVATES

With aerosol fragrances that give your product the "competitive edge".

The fragrance of your aerosol product requires experienced and specialized attention. Whether a cologne or insecticide, shave cream, suntan lotion or hair spray . . . or any of the myriad items now sold in aerosol containers . . . pressurized packaging demands perfumes and masking agents tailored to its specific requirements. The FRIES & FRIES laboratories are equipped and staffed to give your aerosol product this indispensable ingredient . . . "personalized perfumery" . . . developed solely for your needs. For a new experience in aerosol perfume practice . . . call on FRIES & FRIES.

FRIES & FRIES
CINCINNATI

CINCINNATI 110 East 70th St.
NEW YORK 418 East 91st St.

IODINE SANITIZERS

OFFER ALL THESE ADVANTAGES

A LONG RECORD OF DEPENDABILITY. Iodine is recognized as a most efficient antiseptic and germicide. It is known to be effective against a wide range of organisms. New technology has now resulted in more efficient iodine formulations developed especially for sanitization.

SPECIALIZED PRODUCTS. Iodine sanitizers and detergent-sanitizers are offered by leading manufacturers for treatment of milk, food and beverage utensils and equipment. Also available are iodine disinfectant-cleaners for hospitals, schools, institutions, food and beverage plants, and industrial applications.

EFFECTIVE. Iodine sanitizers are effective in low concentrations . . . economical, too. Their use can contribute to improved public health.

EASY TO TEST. The well-known iodine color is an indication of solution strength. When the color of an iodine sanitizing solution begins to disappear, that is a signal to replenish or replace the solution. There is no reason **ever** to let an iodine solution get too weak to be effective. Test kits are available.

Write us for further information. No obligation, of course.

CHILEAN IODINE EDUCATIONAL BUREAU, INC.
Room 2148, 120 Broadway, New York 5, N. Y.

Stillwell and Gladding, Inc.
ANALYTICAL & CONSULTING CHEMISTS
Over 80 Years
SPECIALIZING IN ANALYSIS
of
Rotenone Bearing Materials, Pyrethrum Flowers and Extracts, Soaps, Detergents, Insecticides, Waxes and Chemicals.
130 Cedar Street
New York 6, N. Y.
RE 2-4033

TESTFABRICS, Inc.
55 Vandam Street
New York 13, N. Y.
Cotton Soil Test Cloth #26, Bureau of Ships Spec. 51-S-47 (INT). Same soil printed on wool, silk and all synthetic fibers. Cotton skeins for Draves Wetting test.
Ask for catalogue.

LABORATORY SERVICES
Peet-Grady and C.S.M.A. Aerosol Tests
Biological evaluation and screening of insecticides, fungicides, herbicides and bactericides
Antibiotic assays — Phenol Coefficients
Toxicity Studies
Food Aerosol Testing
Other Biological, Chemical and Microbiological Services
Project Research and Consultation
WISCONSIN ALUMNI RESEARCH FOUNDATION
Write for price schedule
WISCONSIN ALUMNI RESEARCH FOUNDATION
P. O. Box 2217,
Madison 1, Wis.

CLASSIFIED ADVERTISING

RATES
Situations Wanted
5¢ per word — $1.00 minimum
Other Classified
10¢ per word — $2.00 minimum
BOLD FACE RULED BOX
$10.00 per column inch
2 inch minimum
Address Box numbers care of *Soap & Chemical Specialties*
254 W. 31st St., New York 1, N. Y.

Positions Open

Production Man: Knowledge of equipment, chemicals used in making soaps, detergents, waxes, disinfectants and other chemical specialties. Position in Correctional Institution, Central New Jersey location. Call AXminster 8-0500.

Cleaning Compounds: Experienced man wanted for the mixing and formulating of industrial cleaning compounds. Factory located in Chicago. Give age, qualifications and salary desired. Address Box 386, c/o *Soap*.

Salesman Wanted: By floor treatment manufacturer for metropolitan New York area sales to hospitals, schools, institutions, commercial establishments and industry. Salary and commission. Replies will be held in strictest confidence. Write details, giving complete background, experience and salary requirements. Address Box 391, c/o *Soap*.

— WANTED —
TECHNICAL
SALES REPRESENTATIVE
To cover midwestern states for prominent manufacturer, industrial germicides, disinfectants. Knowledge of bacteriology essential. Headquarters Chicago vicinity. Salary, expense, car.
Address Box 400
c/o Soap & Chemical Specialties
254 West 31st St., New York 1, N. Y.

Wanted: Jobbers and distributors for miniature guest soaps, wrapped and unwrapped. Write for samples and prices to Box 389, c/o *Soap*.

Chemist Wanted: With a thorough background in emulsion waxes for one of the fastest growing chemical specialty houses in the middle west. Excellent salary plus profit sharing and other company paid benefits immediately plus the opportunity and freedom to develop a wide range of ideas. The right man will be in on the ground floor of a dynamic growth situation. Address Box 388, c/o *Soap*.

Chemical Salesman: Must have following in sanitary, maintenance products; sales $50,000 or better. Good proposition. Address Box 387, c/o *Soap*.

Sales Representative: For middle Atlantic states to call on pest control operators and formulators wanted by established East coast house. Replies treated in strictest confidence. Address Box 390, c/o *Soap*.

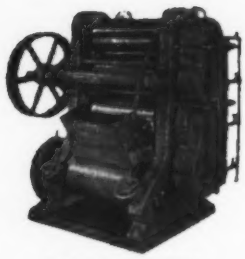
APPLIED RESEARCH
Textile Chemist: Opening for chemist in applied research program. 2-5 years experience desirable in surface activity and/or textiles.
Chemist: Metal Finishing Research Development: BS or MS with 2-5 years experience desired for work in hard surface detergency, electrochemistry, metal finishing processes.
address reply to: Director of Research
COWLES CHEMICAL CO., SKANEATELES, N. Y.

SURFACTANT CHEMISTS
The expansion of our Applications Research Department requires Chemists, experienced in the application of surface active agents. Research Chemists with imagination will find a real opportunity in initiating and carrying out development programs for new and existing surfactants.
A B.S. and several years of experience are essential with an M.S. or Ph.D. preferred.
We are located in the suburban Detroit area with fine living and recreational facilities and have an excellent employee benefit program. Please send your complete resume in confidence to:
Supervisor, Salaried Employment
WYANDOTTE Chemical Corporation
WYANDOTTE, MICHIGAN

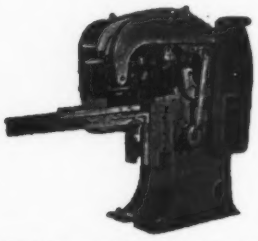
CUT COST & TIME

For PLANT MODERNIZATION and EXPANSION
you can rely on NEWMAN'S

80 years of experience
in new, used and reconditioned
SOAP and CHEMICAL EQUIPMENT



TOILET SOAP MILLS
3 Roll — 4 Roll — 5 Roll
STEEL and Granite Rolls



JONES Horizontal Type AUTOMATIC combination laundry and toilet soap presses. Single or Double Kick.

A COMPLETE LINE of equipment for SOAP, DETERGENT & CHEMICAL SPECIALTIES including, Packaging, Wrappers, Liquid Paste & Powder Fillers, Mixers Boilers, Stainless Steel Tanks & Jacketed Kettles, Cappers, Labelers, Pulverizers, Filters, Dryers, etc.

Steam jacketed stainless steel kettles, all sizes, with or without agitation.

MOVING SALE

CONTINUING AT NEW ADDRESS

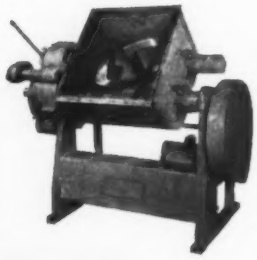
3601 SO. IRON STREET

World's Largest Stock

Choice Equipment to be Sold at

GREATLY REDUCED PRICES

Come In and Save Money — or phone, wire or write



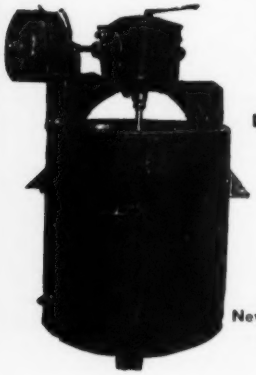
Call, Write or Wire for Additional Information

NEWMAN

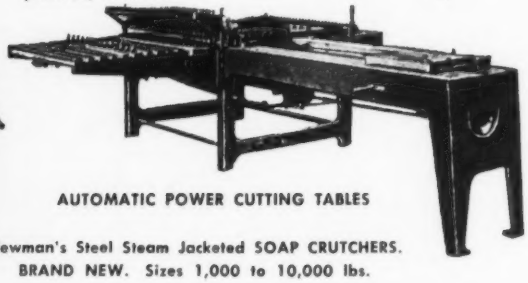
TALLOW and
SOAP MACHINERY
Company

3601 S. Iron Street
CHICAGO 9, ILLINOIS
YArds 7-3665

WE BUY & SELL



Single or double arm mixers, jacketed or unjacketed, all sizes.



AUTOMATIC POWER CUTTING TABLES

Newman's Steel Steam Jacketed SOAP CRUTCHERS. BRAND NEW. Sizes 1,000 to 10,000 lbs.

Newman Tallow & Soap Machinery Company
and
Groak Engineering Corporation

ARE PROUD TO ANNOUNCE THEIR MOVE TO A LARGER PLANT

LOCATED AT: 3601-3611 SOUTH IRON STREET, CHICAGO 9, ILL.

FACILITIES:

The plant is an 83,000 sq. ft. multi-story structure equipped with sprinkler system, air conditioned offices, laboratory, machine shop, truck-loading, railroad siding and water transportation facilities, easily accessible on Iron Street between South 35th Street and South 39th Street (Pershing Road) at 1400 West and 600 Ft. South of West 35th Street. The new location has ample customer parking.

GROAK ENGINEERING CORPORATION:

Established 1910, engaged in Combustion, Boiler Plants, Research and Construction, also the manufacture of Ozonators, air and water purifiers. Operate and own: Heatpower Ltd., Electric Ozone Utilities. The Groak Engineering Corporation represents in the middlewest: The National Airoil Burner Co. of Philadelphia, Pa., prominent oil and gas burner manufacturers; Deloro Smelting & Refining Co., Ltd. of Canada, specialists in Cobalt and Nickel-Base alloys to resist wear from corrosion, high temperature, erosion and abrasion; and distributor for Bethlehem Steel Co. strainers.

NEWMAN TALLOW & SOAP MACHINERY COMPANY:

Established in 1880, offering new, used and reconditioned process equipment, such as: dryers, boilers, stainless steel kettles and tanks, reactors, automatic and semi-automatic packaging equipment, portable agitators, centrifugals, grinding mills (roller, hammer, disc and ball), pumps, filters, mixers for liquid, powder and heavy paste, etc. for the soap, chemical, food, drug, pharmaceutical, paint and allied industries. Plant liquidations and appraisals.

Both companies are operated by the following management.

ADMINISTRATIVE, ENGINEERING and SALES PERSONNEL:

Addison Groak—Engineer, General Manager

Samuel D. Neidorf—Office manager—accountant and attorney

Edward Gross — Chemical Engineer — formerly Vice President of Perolin Co.

J. C. Ingram—Chemical Engineer, Consultant—formerly Supt. of Armour & Co. Auxiliaries.

Charles Berman—Chemical Engineer — formerly manager Ecko Products Co., Minneapolis Plant

William Degutis—Sales Engineer—formerly supervisor production programming and control of Ford Aircraft Engine Division, Chicago

F. Gould Felman—Secretary to Irwin D. Groak, President

West Coast Branch Office: Joseph Newman — Santa Monica, California

OFFICERS & OWNERS:

Irwin D. Groak—President and Treasurer

S. Newman Groak—Vice President

Addison Groak—Secretary and Asst. Treasurer

V. Groak Drues—Asst. Secretary

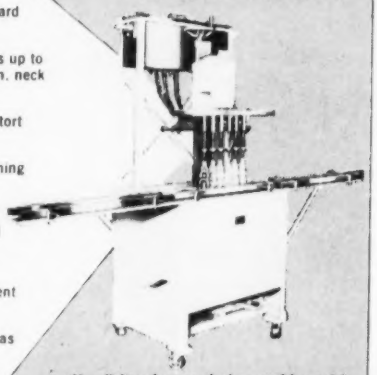
TELEPHONES: GROAK ENGINEERING CORPORATION: LAfayette 3-5144-5. Cable address: GROAKENG

NEWMAN TALLOW & SOAP MACHINERY CO. YArds 7-3665-6-7. Cable address NEWTALCO

NEW! ERTEL GRAVITY FILLER MODEL EGR

Features:

1. Fills cans, plastic bottles and other standard containers
2. Will fill all containers up to 1 gal. capacity with min. neck openings of 7/16"
3. Won't collapse or distort containers
4. Better for filling foaming liquids
5. Parts in contact with liquid are stainless steel
6. Dripproof spouts
7. Lower initial investment and operating cost
8. Can also be supplied as conveyorized unit



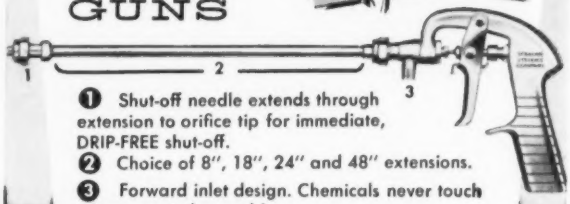
Simplicity of spout design enables quick dismantling and cleaning. Ertel specially designed spouts are known for their special seal and drippproof features. A unique arrangement provides for easy horizontal and vertical change over. Unit is foot pedal operated.

ERTEL ENGINEERING CORP.
KINGSTON 6, NEW YORK
Mfrs. of Filters, Filter Sheets, Vacuum Bottle Fillers, Pumps, Mixers

Write for BULLETIN EGR for full description

SPRAYING SYSTEMS CO.
GunJet®
No. 22-7676

SPRAY GUNS



❶ Shut-off needle extends through extension to orifice tip for immediate, DRIP-FREE shut-off.
❷ Choice of 8", 18", 24" and 48" extensions.
❸ Forward inlet design. Chemicals never touch trigger control assembly.

three features for better performance

Here's a spray gun that's drip-free after shut-off no matter how it's held or how long the extension. Ends chemical waste and the nuisance of dripping. Supplied in complete choice of interchangeable orifice tips for flat, hollow cone, full cone and solid stream sprays. For information write for Data Sheet 7676.
For lighter duty spraying, see the Trigger TeeJet shut-off valve with straight or curved extensions. Also bottle sprayers for sanitation spraying and related applications.

SPRAYING SYSTEMS CO.
3217 Randolph Street • Bellwood, Illinois

DAWE'S

a dependable source for

SODIUM GLUCONATE and GLUCONIC ACID

Promptly available in any quantity.

Warehouse stocks across the country.

Dawe's high quality is assured.

Write for technical data and samples.

DAWE'S LABORATORIES, INC.
4800 South Richmond Street
Chicago 32, Illinois

Dawe's

ADVERTISING CLOSING DATE for SOAP AND CHEMICAL SPECIALTIES is the

10th of preceding month

YOUR COOPERATION IN FURNISHING COPY INSTRUCTIONS ON TIME WILL HELP US MEET OUR PUBLICATION DATE.

Positions Open

Jobbers & Brokers Wanted: For windshield deicer, melts ice and frost from car windows, immediately. Write for samples and prices to Lehigh Chemical Co., P.O. Box 31, Louisville 14, Ky.

Outstanding Opportunity: Experienced sales manager wanted by national manufacturer of sanitary chemicals for established branch operation in midwest covering extensive area. Salary in 5 figures, plus expenses and over-ride on sales. Apply by letter giving complete resume. All replies confidential. Address Box 385, c/o *Soap*.

Situations Wanted

Organic Chemist: Dr. in organic chemistry, specialized in soaps, vegetable oils, fats, fatty acids, and derivatives. 12 years experience,—research, product development and formulation. Desires responsible position . Address Box 393, c/o *Soap*.

Chemist: Executive, expert in formulations and manufacture of sanitary maintenance chemicals. Experienced in handling men in factory and on large maintenance jobs. Address Box 382, c/o *Soap*.

Chicago Mfrs. Rep.: With established following among detergent, household specialty, cosmetic and aerosol manufacturers seeks additional line. Address Box 399, c/o *Soap*.

CHEMIST, SR
RESEARCH & DEVELOPMENT

Excellent oppty for man with scholastic degree & substantial industrial background to associate with a leading mfr. of household consumer products as a Development Chemist. Research exp. with waxes, resins, pigments, solvents & emulsions essential. Some administrative exp. desirable. Metropolitan New York location. Please send complete details including salary requirements — which will be held in strict confidence.

Address Box 384
c/o *Soap & Chemical Specialties*
254 W. 31st St., New York 1, N. Y.

Chemist: Graduate, extensive background in chemical specialties. Development, research, production, control in the industrial, household, institutional, automotive fields. Formulations include emulsions, coatings, waxes, polishes, cleaners, disinfectants, etc. Currently employed. Seeks responsible position. Address Box 394, c/o *Soap*.

Industrial Sales Mgr.—20 years top-level planning, recruiting, training, mfrs. agents. Exceptional record. Change due merger. Address Box 377, c/o *Soap*.

Research Chemist: Ph.D., 27 years of versatile experience in organic and industrial chemistry, creative, specialized in synthesis of basic detergents, wetting and chelating agents, analysis and formulating of detergent compositions and cleaners. Foreign languages. Publications. Literature search. Presently employed in New Jersey. Desires challenging position in research and development, preferably in surfactant field. Address Box 397, c/o *Soap*.

Situations Wanted

Chemist-Salesman: 18 years experience in research, development, and sales of chemical specialties and raw materials. Seeking position in Florida. Address Box 398, c/o *Soap*.

Chemical Sales: 7 years experience selling surfactants, emulsifiers, basic detergents and industrial chemicals to mfrs. of varied all-purpose cleaning products, cosmetics, agricultural pesticides and chemical specialties. Also dyes, pigments, wax/resin and lacquer coating and cutting oils. Graduate chemist. Address Box 395, c/o *Soap*.

Salesman: Man calling on factories, industrial and commercial buildings seeks lines in detergents, cleaners, and other chemical products. Located Connecticut, covering New England and New York state. Not now carrying any chemical products. Send particulars to 396, c/o *Soap*.

NEW PATENTS, PROCESSES, PRODUCTS WANTED

Well financed industrial firm will buy outright, or develop and market on royalty basis. We are particularly interested in patented ideas in the chemical or packaging fields. If the item is not patented, disclosure will be received only on a non-confidential basis. Your written reply will receive most careful consideration.

M. M. FISHER ASSOCIATES, Dept. Q
79 West Monroe Street
Chicago 3, Illinois

MODERN REBUILT AND GUARANTEED PROCESS MACHINERY

UNION Rebuilt Machinery
Established 1912

Specially Priced For Quick Sale

Werner & Pfleiderer 3,000 gal. and 3,500 gal. Jacketed Double Arm Mixers.
Pneumatic Scale Cartoning Unit consisting of Automatic Carton Feeder, Bottom Sealer, Top Sealer and Wax Liners. Both low and high speed.
Pneumatic Scale Tite Wrap Machine.
Stokes and Smith Transwrap.
Package Machinery FA, FA2, FA3, FA4, FAQ, Scandia Wrappers.

Tell Us All Your Machinery Requirements
Complete Details and Quotations Available On Request

Inspection Can Be Arranged By Appointment

Hudson Sharp Campbell Automatic Cellophane Wrapper.
Package Machinery Models S and S-2 Soap Wrappers.
Standard Knapp 429, A-B-C, Ferguson Carton Sealers.
Mikro 4TH, 3TH, 3W, 2TH, 1SH Pulverizers.
Resina LC Automatic, Pneumatic and Capem 4-Head Cappers.
Burt AU-611, CRCO and Standard Knapp Wraparound Labelers.
Baker Perkins 50 gal., 100 gal. Steel, Stainless Steel S. J. Mixers.
J. H. Day 450 — 650 gal. Steam Jacketed Jumbo Mixers.
H. K. Porter 650 gal. S. J. Double Spiral Mixers.
R. A. Jones E Automatic and Houchin Semi-Automatic Soap Presses.
J. H. Day and Robinson 50 up to 10,000 lb. Dry Powder Mixers.
Colton Model 140 Semi-Automatic Stainless Steel Tube & Jar Fillers.
Stokes and Smith G1 G2, HG84, HG88 Auger Powder Fillers.
Pony M, TO, Ermold, World Semi and Automatic Labelers.

UNION STANDARD EQUIPMENT COMPANY
318-322 Lafayette St., New York 12, N. Y. Phone: Canal 6-5334

Business Buy/Sell

Wanted to Buy: Chemical specialty company, minimum volume $100,000, profitable operation. Metropolitan New Jersey area only. Address Box 392, c/o *Soap*.

Wanted: Copy of February 1956 issue of SOAP & CHEMICAL SPECIALTIES to complete our file. Write Lever Gibbs, S.p.A., Via Pirelli, 19, Milano, Italy.

For Sale

For Sale: 4′ x 9′ chilling roll. 3 & 4 roll granite and steel roller mills. Plodders. Grinders. Chippers. Crutchers. Slabbers. Cutting tables. Kettles. Filter presses. Mixers. Sifters. Foot and power soap presses. Partial listing. We buy surplus equipment. Stein Equipment Co., 107 - 8th St., Brooklyn 15, N. Y.

For Sale: Full line new and used processing vats, pumps, coolers, homogenizers, fillers, etc. Send us your inquiries. Stuart W. Johnson & Co., Lake Geneva, Wis.

For Sale: Bowen pilot T-304 SS spray dryers, Sharples #16V inconel soap centrifugals, Hope single piston stainless filler. Perry Equipment Corp., 1410 N. 6th St., Phila. 22, Pa.

For Sale: Reconditioned 12-line "Geyer" straight line piston filler complete with stainless steel in all contact parts. Will handle liquid and viscous products. Ideal for aerosol ingredients. Maximum speeds 200-240 per minute. Reasonably priced. Filler Machine Co., Inc., Philadelphia 11, Pa.

For Sale: 78 page listing of "Surfactants" (1958) Price $2.50. Write John W. McCutcheon, 475 Fifth Ave., New York 17.

Available Soon: Third edition HANDBOOK OF PEST CONTROL by Mallis will be available in a few weeks. Price $12.50. Outside U.S. add 50¢ for postage.

Aniline Names Schramm

Arthur T. Schramm has been appointed to the newly created position of manager, field sales, for the National Aniline Division of Allied Chemical Corp., New York, it was announced last month by Neal M. Draper, assistant to the president. Mr. Schramm now reports to the director, dyestuff sales and branch operations in the Division and is responsible for the direction of the field sales force through the branch managers. With National Aniline since 1936, he was most recently resident manager of the New York sales branch.

At the same time the division announced the appointment of Robert A. Hoffman as resident manager in the Philadelphia sales branch replacing Paul J. Sullivan, who becomes resident manager in New York. Mr. Hoffman joined the Philadelphia sales office in 1937 as a laboratory assistant. With the company since 1951, Mr. Sullivan became Philadelphia branch manager in 1957.

"SCIENTIFIC"

portable SEMI-AUTOMATIC STRAIGHT LINE

VACUUM FILLER

- Fills Directly from Drum. No Overhead Tanks Required.
- Vials to Quarts, Glass or Tin.
- Up to 10 Spouts for Small Containers.

Quick Change-Overs.

Cleans Itself, 5 minutes.

ONLY ONE OPERATOR
For Loading and Filling.

LOW PRICED BENCH AND STAND MODELS

ACTUALLY PAYS FOR ITSELF IN A FEW WEEKS

WRITE FOR FREE TRIAL OFFER

Whirlwind SCREW CAPPER

Replaces Uncertain Hand Capping; Eliminates Fatigue and Worn-Out Fingers.

Any Cap — Any Container — Perfect Sealing!

Adjustable Tension Device Controls Cap Tightness. Portable, Flexible, Fast; Easy to Operate.

Can You Afford to Be Without It?

ACT NOW! Send Sample Caps for FREE TRIAL.

SCIENTIFIC FILTER COMPANY

59 Rose St. New York City 38, N. Y.

FORMULATE
MANUFACTURE
PACKAGE

aerosol packaging

AND NITROGEN FILLING

SPRAYS . . . FOAMS . . .
METERED PURSE-SIZE AEROSOLS

- PRODUCT FORMULATION
- PACKAGE CREATION
- QUALITY CONTROL

PLASTIC TUBES & CONTAINERS FILLED

Old Empire

PERFUMES & COLOGNES
TOOTHPASTE
SHAMPOO
HAIR SPRAYS
DEODORANTS
SHAVING CREAMS
SKIN PREPARATIONS
HAND PREPARATIONS
OINTMENTS
PHARMACEUTICALS

Old Empire

HUmboldt 4-2121
N.Y.C. WOrth 4-7870

865 Mt. Prospect Avenue, Newark 4, New Jersey

Insect Resistance

(*From Page* 89)

houseflies more quickly than normal strains. However when CBA was tested by a laboratory method of short-contact exposure, and tested in the field in Denmark, it failed to show these differences. It is possible that related compounds such as cetyl fluoroacetate (CFA) may show the negative correlation of cross-resistance more decisively. The most promising example is phenylthiourea (PTU), which shows a negative correlation with the resistance to DDT and other insecticides developed by the vinegar-fly *Drosophila*. It has been demonstrated in Japan that PTU-susceptibility and the DDT-resistance derive from precisely the same gene allele, located in fact at map-distance 65 on chromosome II. Here we have an unbreakable negative correlation, since selection with PTU must inevitably select for DDT-susceptibility, and vice versa; it has been proved experimentally that this indeed happens in *Drosophila*. Unfortunately PTU is not markedly insecticidal, nor is it known whether it is negatively correlated with DDT-resistance in house flies.

Although the resistance problem has us on the run, at least we can fight a delaying action and possibly mount a counteroffensive. At present we must make the most of what we have, in essence amounting to only 3 groups of insecticides: DDT and its analogues, the BHC-cyclodiene group, and organophosphorus compounds. They should be used sparingly but decisively, avoiding as far as possible the widespread conditions of partial kill which are so effective in selecting for resistance. These three weapons should be husbanded closely, so that there is at least one in reserve. Substitution of one insecticide group for another, it would therefore appear, should not be made prematurely. Use of the original proven insecticide should be maintained right up to the time when susceptibility tests indicate that a control failure is imminent. Thus we can gain time until a fourth group of effective residual insecticides can be discovered and established. Meanwhile, it would seem logical and profitable to institute a search for negatively-correlated compounds, seeing that the only extra effort needed is to add a resistant strain to the normal strains used in screening tests. Adsorption of this policy offers our only hope of throwing the resistance problem into reverse.

References

Brown, A. W. A. 1958. Insecticide resistance in arthropods. World Health Organization Monograph Series No. 38. 240 pp.

Brown, A. W. A. 1959. The spread of insecticide resistance in pest species. *Advances in Pest Control Research 2*:351-414.

Busvine, J. R. 1957. Insecticide-resistant strains of insects of public health importance. *Trans. Roy. Soc. Trop. Med. Hyg. 51*:11-36.

Crow, J. F. 1957. Genetics of insect resistance to chemicals. *Ann. Rev. Ent. 2*:227-246.

Grayson, J. M. and F. E. Jarvis. 1958. Residual effectiveness of certain insecticides in German cockroach control. *Soap Chem. Spec. 34* (3):91-92.

Hoskins, W. M. and H. T. Gordon. 1956. Arthropod resistance to chemicals. *Ann. Rev. Ent. 1*:89-122.

Lofgren, C. S., J. C. Keller and G. S. Burden. 1958. Resistance tests with the bedbug and evaluation of insecticides for its control. *J. Econ. Ent. 51*:241-144.

Metcalf, R. L. 1955. Physiological basis for insect resistance to insecticides. *Physiol. Rev. 35*:197-232.

Quarterman, K. D. and H. F. Schoof. 1958. The current status of insecticide resistance in insects of public health importance. *Amer. J. Trop. Med. Hyg. 7*:74-83.

Schoof, H. F., R. B. March, A. W. A. Brown and H. Knutson. 1959. Insecticide resistance in arthropods of medical and veterinary importance. *Ent. Soc. Amer. Misc. Pub.* Vol. 1 No.1, 32 pp.

★

Kurtzweil MM&R Sales Rep.

Robert R. Kurtzweil was appointed sales representative last month in Wisconsin, eastern Iowa, and western and northwestern Illinois, for Magnus, Mabee & Reynard, Inc., New York, essential oil firm.

G-R-P Appoints Bickner

Alvah W. Bickner was recently named technical sales representative for Gillespie-Rogers-Pyatt Co., New York, importers and processors of shellac and shellac specialties. Before joining the company, Mr. Bickner was a sales representative for the Boyle-Midway division of American Home Products Corp., New York. He now covers western New York and the midwest region for Gillespie-Rogers-Pyatt.

★

Quinn Wymat V. P.

The appointment of J. A. Quinn as vice-president of Wymat Chemical Corp., a division of The Theobald Industries, Kearny, N. J., was announced last month by Harry Theobald, president. Most recently sales manager of the detergent and chemical specialties division of Theobald, Mr. Quinn also has a background in manufacturing and research and development. Wymat manufactures synthetic organic chemicals and pharmaceutical intermediates.

As Reader Sees It

(*From Page* 49)

one of the priests spent the entire summer at the Lodge. He felt that, in order to justify his board, he might as well help with painting the trim on the two dozen cabins around the place. The first day one of his friends sprayed his neck with a well-known insect repellent. On the second day nobody was around to help so Pete sprayed himself thoroughly with what seemed to be the same can. An hour later, when the whole camp was roaring with laughter, he was led to a mirror and allowed to examine the beautiful job he had done with the spray can of white enamel bought to redo the toilet seats. So help me, this is entirely a true story!

B. W. Mehren
PM Chemical Co.
San Diego, Calif.

Index to ADVERTISERS

Aero-Chem Fillers, Inc. 157
Air Reduction Chemical Co. 110
Allied Chemical Corporation,
General Chemical Division.....37, 142
National Aniline Division 17
Nitrogen Division 98
Semet-Solvay Petrochemical Div... 90
Solvay Process Div.....2nd Cover, 181
American Agricultural Chemical
Co. 8, 9
American Can Co. 128
Anchor-Hocking Glass Corp.....126, 127
Antara Chemicals Div., General
Aniline & Film Corp. 118
Argueso & Co., M. 122
Arizona Chemical Co. 36
Aromatic Products, Inc. 105
Atlantic Refining Co. 25
Averil, Inc. 157

Badertscher, A. Edison 209
Barr & Co., G. 148, 157
Blockson Chemical Co. 14
Books 40, 112, 168, 219
Brockway Glass Co. 132
Builders Sheet Metal Works, Inc..... 158

Candy & Co. 12
Chase Products Co. 157
Chemical Specialties Mfrs. Assn..... 72
Chilean Iodine Educational Bureau.. 210
Columbia-Southern Chemical
Corp. 114, 115
Continental Filling Corp. 136
Continental Oil Co. 15, 186
Commercial Solvents Corp. 31
Cowles Chemical Co. 184
Cox, Dr. Alvin J. 209
Crown Cork & Seal Co., Inc. 144

Dawe's Laboratories, Inc. 214
Dodge & Olcott, Inc. 113
Donner & Co. 207
Dow Corning Corp. 83
Dragoco 94, 95
du Pont de Nemours & Co., E. I..... 150
Durez Plastics Division 93

Eastman Chemical Products, Inc..... 102
Emery Industries, Inc. 182, 183
Ertel Engineering Corp. 214
Esbec Chemical Division 157

Fairfield Chemical Division 106
Felton Chemical Co. 23, 24
Firmenich Inc. 10, 11
Fleuroma, Inc. 16
Florasynth Laboratories, Inc. 198
Food Machinery & Chemical
Corp. 34, 35
Fries & Fries, Inc. 210
Fritzsche Brothers, Inc. 190

Gard Industries, Inc. 157
Geigy Agricultural Chemicals 86
Geigy Industrial Chemicals 192
Gillespie-Rogers-Pyatt Co. 108
Givaudan-Delawanna, Inc. 67, 100
Gross & Co., A. 196

Harchem Division, Wallace &
Tiernan, Inc. 120
Hercules Powder Co. 70
Hill Top Research Institute, Inc. 209
Hooker Chemical Corp. 172
Hudson Laboratories, Inc. 209
Huisking & Co., Charles L. 26, 27

Industrial Biology Labs., Inc. 209

Jefferson Chemical Co. 200
Johns-Manville 96
Jones & Co., R. A. 166

Kiefer Machine Co., The Karl 162
Krystall Chemical Co. 194

La Wall & Harrisson 209
Leberco Laboratories 209
Lehmann Co., J. M. 170
Lewers, Dr. W. W. 209

March Mfg. Corp. 157
Mazzoni, S.p.A., G. 164, 165
McCutcheon, Inc., John W. 209
McLaughlin Gormley King Co. 74
Miranol Chemical Co., The 29
Monsanto Chemical Co. 32, 33

National Research & Chemical Co..... 157
National Starch & Chemical Corp..... 104
Newman-Green, Inc. 138
Newman Tallow & Soap
Machinery Co. 212, 213
Nopco Chemical Co. 68, 69
Norda 3

Old Empire, Inc. 216
Olin Mathieson Chemical Corp.,
Chemicals Division 205
Onyx Oil & Chemical Co. 4
Oronite Chemical Co. 18
Owens-Illinois Glass Co. 152

Pace, Inc. 157
Pennsalt Chemicals Corp. 124
Peterson Filling & Packaging Corp... 157
Pfizer & Co., Charles 116
Philadelphia Quartz Co. 48
Pilot California Co. 52, 188
Plax Corp. 41-44
Polyvinyl Chemicals, Inc. 204
Precision Valve Corp. 146
Price, Dr. Donald 209
Procter & Gamble Co. 50

Risdon Mfg. Co. 134
Rohm & Haas Co. 38
Roure-Dupont, Inc. 84, 85

Schimmel & Co. 160
Schrader's Son, A 154
Scientific Associates 209
Scientific Filter Co. 216
Seaquist Mfg. Co. 156
Shulton, Inc. 13
Sindar Corp. 46
Foster D. Snell, Inc. 209
Spraying Systems Co. 214
Stalfort & Sons, Inc., John C. 157
Stepan Chemical Co. 7
Sterwin Chemicals Inc. 123
Stillwell & Gladding, Inc. 211
Sun-Lac, Inc. 158

Testfabrics, Inc. 211
Thomasson of Pa., Inc. 158

Ultra Chemical Works 174
Ungerer & Co. .....3rd Cover
Union Standard Equipment Co. 215
U. S. Borax & Chemical Corp. 30
U. S. Bottlers Machinery Co. 168
U. S. Industrial Chemicals Co. 208

van Ameringen-Haebler,
Inc. .....121, 4th Cover
Van Dyk & Co., Inc. 122
Velsicol Chemical Corp. 97
Verona Aromatics, Div. of Verona
Pharma Chemical Corp. 39

West End Chemical Co. 178
Western Filling Corp. 158
Westvaco Chlor-Alkali Div. 28
Westvaco Mineral Prods. Div. 6
Wisconsin Alumni Research Found... 211
Witco Chemical Co. 202
Wood & Co., G. H. 73

COMING MEETINGS

American Chemical Society, national meeting, Cleveland, April 5-14.

American Oil Chemists Society spring meeting, Baker Hotel, Dallas, April 4-6, 1960. 1960 fall meeting, New Yorker Hotel, New York, Oct. 17-19.

Association of American Soap & Glycerine Producers, 33rd annual convention, Waldorf-Astoria Hotel, New York, Jan. 20-22.

Chemical Market Research Association, Lord Baltimore Hotel, Baltimore, Feb. 17 and 18.

Chemical Specialties Manufacturers Association, 46th midyear meeting, Drake Hotel, Chicago, May 16-18; 47th annual meeting, Hollywood Beach Hotel, Hollywood, Fla., Dec. 3-9.

Drug, Chemical & Allied Trades Association, 70th annual meeting, Sagamore Hotel, Bolton Landing, N.Y., Sept. 15 - 18, 1960.

Federation of European Aerosols Association, Duesseldorf, Germany, April 20-27.

Folding Paper Box Assn., annual meeting, Ambassador Hotel, Los Angeles, March 22-23.

International Congress of Surface Activity, Cologne, Germany, Sept. 12-17.

National Packaging Show, Convention Hall, Atlantic City, N. J., April 4-8, 1960.

National Sanitary Supply Assn. 37th annual convention, Fontainebleau Hotel, Miami, Fla., May 22-25, 1960.

National Sanitary Supply Association, district meeting, Webster Hotel, Pittsburgh, Pa., Feb. 11.

Packaging Machinery Manufacturers Institute, (PMMI) fourth annual show, Cobo Hall, Detroit, Oct. 31-Nov. 3, 1960.

Plant Maintenance & Engineering Show, Convention Hall, Philadelphia, Jan. 25-28.

Purdue Pest Control Operators' Conference, 24th annual meeting, Purdue University, Lafayette, Ind., Feb. 1-5.

Society of Cosmetic Chemists, New York Chapter, New Yorker Hotel, April 20.

Synthetic Organic Chemical Manufacturers Association, monthly luncheon meetings, Roosevelt Hotel, New York, Feb. 2; March 8; April 12; annual spring outing, Shawnee Inn, Shawnee, Pa., May 11-13; annual meeting, Roosevelt Hotel, New York, Dec. 8.

Toilet Goods Association, 25th annual meeting, Poland Springs House, Poland Springs, Me., June 27-29, 1960. Scientific Section, Waldorf-Astoria Hotel, New York, May 11, 1960.

BOOKS...

Books for ready reference in your plant • home • office • laboratory

* * * *

1. Pressurized Packaging (Aerosols) by Herzka-Pickthall.

411 pages, profusely illustrated. First book on aerosols ever to be published. Covering formulation of all aerosol products, filling techniques, propellants, etc. Price $12.00.

* * * * *

2. Surface Active Agents and Detergents by Schwartz-Perry.

Volume I—590 pages, 51 illustrations. Covers manufacture, chemistry and practical applications of surface active agents. Price $13.50

Volume II—860 pages, 26 illustrations. Covers processes for synthesizing surfactants, composition of surfactants and their chemistry and application. Price $19.50.

* * * * *

3. Detergent Evaluation and Testing by Jay C. Harris.

220 pages, 26 illustrations. A critical selection of methods and procedures for testing detergents. Price $4.50.

* * * * *

4. Soap Manufacture by Davidson, et al.

Volume I—537 pages, 66 illustrations, 118 tables. Covers history of soap, principles of soap manufacture, fats and other raw materials for soap manufacture. Price $13.50.

Volume II—Now in course of preparation.

* * * * *

5, Modern Chemical Specialties by Milton Lesser.

514 pages, 22 illustrations. Covers formulation, properties and application of 50 types of household, industrial and automotive chemical products. Price $7.25.

* * * * *

For shipments outside of U. S. A., add 50¢ to each of above prices.

* * * *

— Send Check with Order —

MAC NAIR-DORLAND CO.

254 West 31st St., New York 1, N. Y.

Enclosed find check for $.....for which send me the books checked above:

Company .....

Address .....

City ..... State .....

By .....

(Add 3% sales tax if in New York City)

Tale Ends

JOHN Rodda of Fairfield Chemical (Food Machinery), the piperonyl king, will return to college shortly. His company plans to have him take the 13 weeks course for business executives at the Harvard Business School. John is undecided whether to be delighted or chagrined. Anyway, his friends are banding together to buy him a bright red freshman cap.

* * * * *

First bet on the 1960 world series was placed recently. Len Oppenheimer of West Chemical Products in Long Island City and a die-hard Dodger rooter has bet John Flanagan of Federal Varnish, Chicago White Sox fan, one dollar each way, do or don't. In short, the Dodgers and White Sox first have to win their respective pennants. After that, it's simple.

* * * * *

CSMA has a new prez for 1960, one Dr. George Fiero of Esso Standard Oil. Now, it's amazing the number of people who mispronounce George's name. The correct pronunciation is "Fear-row" and not "Fee-air-row" as some people believe. George and his name are Scottish, his Grandfather Fiero having been born in Glasgow. So watch your pronunciation. Some members of the Fiero family are touchy on the subject.

* * * * *

A liquid soap, alleged to contain 40 per cent anhydrous soap, was uncovered in Peoria, Ill., recently by one of our spies. The stuff was made in New York City and shipped to Peoria, where it sold for 69 cents a gallon. Actually, raw materials, freight and drum would bring the cost of the soap way over the per gallon retail price. No wonder buyers scream about lack of quality in the products they are buying!

* * * * *

Are we living in an age of overspecialization? At meetings of the Cosmetic Chemists, we find chemurgists and microbiologists presenting gums derived from glucose by microbial synthesis. They are suggested for use in cosmetics, hair sprays, lotions, etc. The dentist talks to the toiletries formulator as does the dermatologist and the endocrinologist. The formulator of polishes is concerned with optics and other branches of applied and pure physics. The perfumer goes in for vapor phase chromatography. The aerosol boys need the metallurgist, rheologist, etc. High polymer chemistry touches every one of the specialties fields. Boy, just to live gets more complicated every day!

* * * * *

Oh for the life of a traveling sales manager! John Nykiel, sales boss of the Associated Products Division of Colgate-Palmolive Co., New York, got back to New York City just before Christmas following a 2-weeks road trip. En route John visited such assorted and sundry cities as Chicago, Denver, San Francisco and Jacksonville, Fla. How that last one got in there we'll never know. John seems to be on the road perpetually on behalf of Colgate's industrial and institutional detergents, soaps, cleansers, room deodorants, etc. He travels well over 100,000 miles a year. So, if you happen to bump into John in any of our major cities, don't be surprised, it's all in the line of duty.

* * * * *

Recently, the Communist magazine "Women of China," published a recipe for moon cakes which called for caustic soda as an ingredient. A month later the Peiping magazine published a correction which stated: "In our recipe for moon cakes, there was an unfortunate error in translation: Soda (sodium carbonate) was regrettably listed as caustic soda." Well, they probably don't mean sodium carbonate either. Sodium carbonate is "washing soda." Cooking "soda" is usually sodium bicarbonate. Sort of compounding the error, as it were. Poor moon cakes!

* * * * *

One of the prime topics of discussion at the recent SAACI Christmas Party at the Waldorf-Astoria in New York was girls. Not that this is unusual at a salesmen's party—but the girls under discussion were not the hula dancers on stage, but the granddaughters of the various SAACI members. Two eager participants in the discussion were Herb Kranich of Kranich Soap in Brooklyn and Harry Armitage of Emery. The gleam in the eyes of these two gents was something to behold—and it makes you realize that Time Marches On.

* * * * *

A reproduction of pyrethrum flowers decorates a new issue of East African twenty-shilling notes. On the front is a picture of the Queen and on the reverse side a beautiful design showing coffee branches and pyrethrum flowers. This twenty-shilling note is the second to be issued in the new series of designs for currency of Kenya, Uganda, Tanganyika and Zanzibar.

* * * * *

Bob Crockett, vice-president of Oil Specialties & Refining Co., Brooklyn, is up and around again at home following a very serious stomach operation early in December. Bob lives at 457 Ridgewood Road, Maplewood, N. J., and would love to hear from his friends in the industry.

* * * * *

Pace, Inc., Wilmington, Del., contract aerosol loader distributed a novel aerosol product, "Instant Christmas", just before the holidays. The product, according to the label, "does everything." "Spray it on friends you forgot to buy a gift for when they drop in during the holidays. They'll appreciate your thoughtfulness." The two-ounce can, with red, white and green paper label featuring illustration of Santa Claus, is filled with very attractive spray fragrance.

* * * * *

Hit of the CSMA meeting in Washington: Initialed, gold car ignition keys cut out and initialed while you waited right in the suite of General Dyestuff Co. and Antara Chemicals, sales divisions of General Aniline & Film Corp.

Peter C. Reilly (left), president of Reilly Tar & Chemical Co., Indianapolis, Ind., is presented with "Atmos" clock upon his retirement as treasurer of Chemical Specialties Manufacturers Assn. Making the presentation on behalf of CSMA at 46th annual meeting in Washington, D. C., Dec. 9, is Charles E. Allderdice, Jr., of Bell Co., Chicago, newly elected second vice-president of CSMA. Looking on is Jeanette Reilly, Peter's wife. Pete was given a wrist watch, too.